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Forty-seventh Annual

President's Report

by

Edmund Ezra Day

1938-39

With appendices containing a summary of
financial operations, and reports of
the Deans and other officers

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REPORT OF THE PRESIDENT FOR 1938-1939

To the Board of Trustees of Cornell University:

I have the honor to present the following report on the University for the academic year 1938–39. This report attempts nothing more than a highly summarized account of the more important developments of the year. More detailed reports for the same period from the deans of the several colleges and the heads of the independent departments and offices appear in a series of appendices. I believe that the members of the Board will find the material in these appendices both interesting and instructive.

DEGREES GRANTED AND STUDENTS ENROLLED

During 1938–39, the University granted 1493 degrees. The distribution of these degrees among the several colleges and schools is shown for the past two years in Table A.

TABLE A. NUMBER OF DEGREES GRANTED, BY COLLEGES AND SCHOOLS, 1937-38 AND 1938-39

College or School	*1937–38*	*1938–39*
Entire University	1446	1493
Arts and Sciences	383	384
Engineering	156	148
Agriculture	237	254
Home Economics	89	87
Hotel Administration	43	49
Veterinary Medicine	31	40
Architecture	24	25
Law	49	53
Medicine	66	63
Graduate School: Masters	237	241
Doctors	131	130

It is to be noted that about three-fifths of the degrees now being given by the University are awarded to students who have completed programs requiring four years of work beyond the secondary school. The other two-fifths of the degrees are presented on successful completion of more extended programs. It is highly probable that a larger and larger proportion of the degrees awarded by the University in the future will fall into this more advanced class.

The total number of students enrolled in the University in 1938–39 (duplicates excluded) was 7055—the largest in the history of the institution. The figures for the University as a whole, as well as for the separate colleges and schools, for the successive academic years from 1920–21 to 1938–39 inclusive, are shown in Table B.

TABLE B. NUMBER OF STUDENTS ENROLLED, BY COLLEGES AND SCHOOLS IN THE ACADEMIC YEARS 1920–21 TO 1938–39 INCLUSIVE

(*Excluding Short Courses and Summer Session*)

	Entire University excluding duplicates	*Separate Colleges and Schools*								
		Arts & Sci.	*Eng.*	*Arch.*	*Agr.*	*Home Econ.*	*Hotel*	*Vet.*	*Law*	*Med.*	*Grad.*
1920–21	5668	1845	1686	117	919	285		81	119	279	440
1921–22	5677	1836	1634	118	887	274		80	97	239	614
1922–23	5502	1809	1445	188	830	309	40	91	90	278	540
1923–24	5588	1919	1355	181	784	336	101	87	113	274	544
1924–25	5698	1977	1260	196	753	371	115	77	167	277	583
1925–26	5818	2029	1193	187	835	353	125	89	155	281	662
1926–27	5776	2059	1160	182	747	384	130	101	115	302	685
1927–28	5671	1974	1135	187	715	343	128	111	109	274	777
1928–29	5651	1990	1066	196	676	357	140	143	140	263	775
1929–30	5893	2019	1009	184	745	401	161	134	149	248	876
1930–31	6156	2021	1046	181	831	419	176	162	142	248	1020
1931–32	6271	1920	969	173	969	409	197	214	127	243	1139
1932–33	6167	1944	935	172	964	444	188	175	118	254	1044
1933–34	5947	1894	860	162	1064	468	166	179	143	284	791
1934–35	5910	1823	827	161	1172	454	194	157	144	288	753
1935–36	6019	1825	812	151	1257	441	209	131	162	290	816
1936–37	6341	1883	938	135	1358	417	254	151	156	299	935
1937–38	6684	1980	1025	129	1513	449	271	154	149	289	955
1938–39	7055	1886	1145	136	1616	479	291	163	186	288	1050

The most significant changes of the more recent years, disclosed in the data of this table, are: (1) the marked increase in the enrollment of the Engineering College since the low registration of 812 in 1935–36; (2) the continued rise in the registration of the College of Agriculture since the period of the late 1920's; and (3) the rapid increase in the number of students enrolled in the Graduate School in the years since 1934–35. The persistent decline in the size of the student body of the College of Architecture and the uninterrupted increase of student enrollment in Hotel Administration also are to be noted. None of these trends has as yet raised critical issues, but certain major problems for the University certainly lie in prospect if the observed trends continue to operate. Thus it may be questioned whether substantially larger enrollments in the College of Agriculture and in Hotel Administration may wisely be accepted until staff and facilities can be correspondingly expanded. On the other hand, further increases in the size of the student body of the College of Engineering may well be welcomed. The fall in registration in the College of Architecture appears to have come to an end, and both this college and the Law School may well be somewhat larger than they have been during recent years. Upon the whole, the student body of the University is already large enough, and the phases of registration which merit close attention relate to possible improvements of selective admission rather than to ways and means of increasing enrollment.

FINANCIAL OUTCOMES

Thanks in part to the increased tuition receipts obtained from the larger student enrollment reported above, it was possible without serious distress for the second successive year to close the financial books of the University on June 30th, with a small surplus. The full details of the financial record of the entire year are set forth in the annual report of the Comptroller.

The avoidance of an operating deficit under present circumstances is in many ways an unpleasant assignment, for the needs that are being constantly brought to the attention of the administration are frequently of a highly appealing, as well as deserving, character. Nevertheless the administration is determined, if possible, to keep the outgo of the University within its income. Difficult and distressing as this policy may be at times, there does not appear to be any alternative if the resources of the University are to be adequately and permanently protected.

At the same time, there have appeared to be no equitable grounds upon which to burden current operations with the necessity of retiring, even over a period of years, the large accumulated deficit standing on the books of the University at the beginning of the year 1937–38. Consequently, by action of the Board of Trustees taken April 19, 1939, this deficit, together with certain so-called advances which were clearly no longer recoverable, was written off, the endowment of the University being reduced by an equivalent sum. This action, drastic as it was, served to clean the record and to bring the accounts of the University into full accord with the current financial realities.

The policy of living within available income is made doubly difficult these days by the decline of yield on safely invested endowment funds. In 1936–37, the average earnings on the University's pooled investments was 4.7468%; in 1937–38, it was 4.2867%; in 1938–39, it was 4.007%. The Finance Committee of the Board cooperated to the utmost with the administration of the University in guaranteeing payment of 4¼% on the endowment funds in the budget for 1938–39. Since this rate was not fully realized, a substantial sum—$67,036.54 to be exact—had to be taken from the Income Stabilization Fund which the Committee has been accumulating. While this type of action is doubtless warranted as a means of cushioning the effects of the falling rate of interest on the University's investments, such action cannot be regarded as appropriately anything more than an emergency measure; shortly the University's operating budget must be made to conform to the actual earnings of the endowment funds if the principle of living within income is to be honestly applied. It is in connection with this falling-rate of return on investments that some of the most serious difficulties of balancing the University's budget are being encountered.

One of the compensating measures that may have to be adopted to offset the falling rate of return on endowment funds is an increase of tuition charges. College and university administrations are loath

to resort to this measure for a number of reasons, the most important of which is that many highly deserving students have great difficulty financing their higher education with charges as they are; increases of cost would probably force a good many of these young men and women out of advanced training. The fact remains that tuition charges, in one guise or another, will probably have to be raised rather generally if the rate of return on endowments continues to fall. An increase from $500 to $600 per annum in the tuition rate for all incoming students in the Medical College beginning with the Class of 1943 was voted by the Trustees in October 1938. The action in this instance was inescapable owing to the persistent decline in the earning of the separate Medical College endowment funds which have always contributed a large proportion of current income in the Medical College budget.

Like developments in other parts of the University are to be avoided only as the resources of the University are currently augmented at a rate sufficient to offset the declining yield on investments. The situation is one in which the University, like Alice in "Through the Looking Glass," must run hard in order to stand still. The record of gifts and donations to the University during 1938–39 was in some ways gratifying indeed. A total of $1,013,358.11 was contributed, of which $359,387.45 was in endowment, and $653,970.66 in current funds. The unrestricted gifts amounted to $291,332.84, of which $91,842.46 was in endowment, and $199,490.38 in current funds. The unrestricted funds contributed to the University through the Cornellian Council totaled $47,988.48. The marked increase in the number of contributors through the Council was one of the most encouraging developments of the year, and speaks well for the leadership which is being provided by the Council and in particular by its new executive secretary, Walter C. Heasley. It is to be hoped that the improved organization which is now at work in this office and in the office of the Provost may step up substantially the rate at which the friends of the University place added resources at its disposal. Nothing so profoundly concerns the future of Cornell as do the prospects of more adequate support of its undertakings by those who have its interests deeply at heart.

THE SALARY SITUATION

As the available resources of the University are augmented, one of the needs that must be kept continuously in mind is the need for better salaries for the teaching and research staff. The present situation is distinctly uneven. In two or three of the professional schools, the existing scale of salaries is reasonably satisfactory. Moreover, during the past two years, the administration has moved in several cases to compensate more adequately the truly distinguished members of staff in all parts of the University. Meanwhile, however, the salary range in many departments remains regrettably low, and, for many of the junior staff, current rates of pay are not consistent with

self-respecting participation in the life of the University and of the larger local community. Improvements must be wrought in this situation over the next few years if Cornell is to maintain its relative position in the world of American institutions of higher learning. Any substantial increase of prices and hence of the cost of living would, of course, further accentuate the pressing nature of this general problem.

THE PHYSICAL PLANT

Changes occurring in the physical plant of the University during 1938–39 were not extensive. The splendid new research laboratories of the Veterinary College, made available through the State's completion of Veranus A. Moore Hall in the spring of 1938, were occupied for the first time, and the new horse barn of the College of Agriculture was rapidly approaching completion as the year came to an end. Extensive alterations in Willard Straight Hall, made during the summer and fall of 1938, added greatly to the usefulness of that invaluable center of student life on the campus. Numerous minor operations, carried out most efficiently by the Department of Buildings and Grounds at various points in the University's plant, raised perceptibly the effectiveness of current operations. In general it may be said that every effort is being made to conserve and utilize wisely whatever the University already has in the way of both buildings and grounds.

The fact remains that the existing plant is markedly deficient at certain points. The housing of some of the University's great collections of books and other library materials is totally inadequate. Recitation and office buildings in both the College of Arts and Sciences and the College of Agriculture are now seriously congested and greatly need supplementation. The buildings and equipment of the College of Engineering press for thorough modernization. New indoor sports buildings for both the men and the women are desperately needed. Ways and means of rectifying some of these deficiencies in the early future must be found if the University is to carry on its work satisfactorily.

RESEARCH ACTIVITIES

In times of emergency or of protracted distress, there is always the danger that perspective will be lost and that courses of action will become essentially shortsighted. It is part of the rôle of the great university to promote long-range interests that transcend the fluctuating issues of the day, however momentous these may appear at the time to be. Of course, in a period of national crisis, institutions, like individuals, must give all they have to the common cause. But if, when the crisis has passed, the harvests of an advancing civilization are again to be gathered, the seed-beds of intellectual life must not be abandoned even temporarily.

The research activities of the scholars and scientists of every outstanding university constitute an invaluable cultural resource which

should be conserved at all costs. To curtail these activities in times of stress, either economic or political, is false and wasteful economy. Fundamental research is never more needed than when the future becomes obscure. It should be vigorously pursued in our own University at the present time. Unfortunately our existing support for research varies greatly from field to field; in some, it is deplorably meager. It is my earnest hope that the very great importance of strengthening the University's efforts to multiply its contributions to ongoing science and scholarship will become evident to some of those who are in position to add to the University's present resources.

IMPROVEMENTS OF ORGANIZATION

While the organization with which the University carries on its work is in most respects both sound and adequate, there are certain points at which changes or additions can be introduced to good advantage. It will take time to effect all of these desirable improvements, but already a number have been accomplished.

Perhaps the most important step taken during 1938–39 to strengthen the existing University organization was the action of the Board in regard to the office of University Provost. This post, created in 1931 and occupied with distinction from that time until the summer of 1937 by Dr. A. R. Mann, was originally designed to provide overall assistance to the President's Office in the general administration of the University. The position has now been given an entirely different scope: the Provost for the present will devote himself to the continuing efforts of the Board and of the administration to add to the University's financial resources. Mr. H. Wallace Peters, of the Class of 1914, who was appointed Provost on December 1, 1938, came to the new position from a highly successful career in business. He serves ex officio as executive secretary of the Trustee Committee on Funds for the Endowed Colleges, and has already taken hold of his new work with gratifying thoroughness and vigor.

The graduates of Cornell are celebrated for the enthusiasm and loyalty with which they regard their alma mater. They have rendered invaluable services to the University from the early days of the institution. Their activities have in some ways been excellently organized, but a lack of adequate coordination has become evident during recent years as alumni interests have expanded and alumni groupings have multiplied. Considerable dissatisfaction with existing arrangements led, during 1938–39, to the appointment of a representative group to make a comprehensive study of possible improvements of alumni organization. The recommendations of this group were formally adopted at the annual commencement meeting of the alumni in June 1939. The overall direction of alumni affairs is now in the hands of a board of directors in which the federations of local clubs, the class secretaries, the Alumni Fund, and the several college and school associations are all represented. It is confidently expected that the reorganization will in time substantially strengthen the

promotion of the reciprocal interests of the University and its graduates.

Another significant improvement of organization was effected during 1938–39 through the creation of a new Council on Physical Education and Athletics. Following the creation of the Board of Athletic Policy in 1935 considerable confusion arose as to the respective jurisdictions of this Board and of the University Faculty, acting through the Faculty Committee on Student Activities. This situation was entirely cleared through the establishment, by concurrent action of the Board of Trustees and the University Faculty, of the new Council on Physical Education and Athletics. The Council consists of: the Director of Physical Education and Athletics, Chairman ex officio; the President, ex officio; the Comptroller, ex officio; three representatives of the University Faculty; two Alumni Trustees; and two representatives of the student body. It is clothed with authority, under the Board of Trustees and the President, to determine policies and to exercise administrative control in all phases of the University's program in physical education, recreation, intramural sports, and intercollegiate athletics. Already an increase of efficiency in the operations in this broad field has become evident.

An important development in still another direction was brought into definite prospect when the Board of Trustees at its meeting in April 1939 accepted the recommendation of the University Faculty that a full-time Counselor of Students be added to the University's staff. Lack of funds precluded any appointment to the new position for the year 1939–40, but the early initiation of student personnel services of a comprehensive sort would seem now to be assured, and should in time yield large returns in an enriched extra-curriculum student life on the campus.

Two new departments were created in the course of 1938–39: one an inter-college Department of Zoology, combining the somewhat scattered resources of the University in this important field; the other a Department of Sociology and Anthropology in the College of Arts and Sciences, giving independent departmental status to work previously carried on in the Department of Economics. While the multiplication of departments is not to be generally encouraged, the creation of these two brought an unmistakable improvement in the University's academic organization.

A gratifying development at the Medical College brought the Department of Psychiatry under the same budgetary procedures and the same administrative supervision prevailing in the case of the other departments of that College. Previously the Department of Psychiatry, while sharing in the teaching and research activities of the College, was administratively under the jurisdiction of the Society of the New York Hospital, in the Payne Whitney Clinic. The new relationship of the Department to the College was brought about through the generosity of the Society, which agreed to deposit in the joint account of the University and the New York Hospital the full

amount necessary to carry the current budget of the Department. The new arrangements should assist materially in welding together all the departments of the College, clinical and preclinical, into a unified and efficient organization for both professional training and research.

IMPORTANT NEW NEIGHBORS

During 1938–39 the University acquired two important new neighbors. In New York City the Memorial Hospital, devoted to the treatment and study of cancer and allied diseases, moved into its splendid new quarters across the street from the Medical College and the New York Hospital. The close relationships between the Memorial Hospital and the Medical College Council, provided for in the Douglas Deeds of Trust under which large donations went to the Hospital, give promise of a collaboration between the staffs of the Hospital and the College, now that the two are in such close proximity, which should prove in time mutually and highly advantageous.

The other new neighbor is the Federal Nutrition Research Laboratory at Ithaca. A tract of 2.28 acres of land from the University's holdings at the eastern end of Tower Road was deeded by the Trustees to the United States Government in April 1939 as a site for the projected building. Construction of the first section of the building has since been started. Agreements which have been reached between officers of the University and of the United States Department of Agriculture give assurance that the contemplated research activities of the Laboratory and the related work of the departments of the College of Agriculture will be made to supplement and reinforce one another. The University may well welcome enthusiastically the opportunities that lie ahead for fruitful cooperation with the Federal authorities.

NEW EDUCATIONAL OFFERINGS

The year 1938–39 afforded the administration opportunity to begin a critical examination of the educational program of the University. Along this line changes will come slowly: the factors involved are exceedingly complex, and changes can be introduced only as the faculties are themselves persuaded that changes are desirable. The fact remains that a number of fundamental issues confront higher education in this country at the present time, and our own University can play an important part in working out some of the constructive solutions. The new administration is greatly interested in these matters and hopes from time to time, with the approval of the faculties, to bring definite proposals to the attention of the Board.

One such proposal was presented to the Board at its meeting in January 1939: the plan for a new five-year program of training for the personnel of our secondary schools. It will take some time to get this program into full operation, for the selective processes and new units of instruction that are contemplated are not in hand and will have to be somewhat experimentally developed. Nevertheless the de-

tails of the new plans make it already evident that the fundamental purposes of professional training in this important field have been more clearly conceived than heretofore and that improved results in professional preparation for secondary school work can be confidently expected.

Another significant line of educational innovation at the University is to be found in the problem courses now being given in the Law School. These new units of instruction for third-year students appear to have strengthened substantially the later phases of legal training in the School, and already are being imitated at other institutions.

Among the questions of educational policy which are certain to require attention in the near future is the question of the possible desirability of additional schools or colleges in fields of specialized training not provided for in the University's present offering. During 1938–39, the Board authorized a preliminary study of the practicability and wisdom of the early establishment of a new professional school or college to cover the field of business and public administration. A report on this subject will presumably be presented to the Board in the course of the next few months.

CHANGES IN ADMINISTRATION AND FACULTY PERSONNEL

It is the sad duty of the administration to report the deaths during 1938–39 of the following members of the University Faculty:

James Ernest Boyle, Professor of Rural Economy, September 18, 1938.

George Walter Cavanaugh, Professor of Chemistry, Emeritus, July 2, 1938.

Pol N. Coryllos, Professor of Clinical Surgery in the Medical College in New York City, July 26, 1938.

James Clifton Edgar, Professor of Obstetrics, Emeritus, in the Medical College in New York City, April 7, 1938.

George Charles Embody, Professor of Aquiculture and Aquiculturist in the Experiment Station, February 17, 1939.

Frank Latta Fairbanks, Professor of Agricultural Engineering and Agricultural Engineer in the Experiment Station, March 5, 1939.

Jeremiah Sweetser Ferguson, Secretary of the Faculty of the Medical College in New York City, June 30, 1939.

Abram Tucker Kerr, Professor of Anatomy and Secretary of the Ithaca Division of the Medical College, August 15, 1938.

Thomas Lyttleton Lyon, Professor of Soil Technology, Emeritus, October 7, 1938.

Ernest William Rettger, Professor of Applied Mechanics, October 9, 1938.

Nathaniel Schmidt, Professor of Semitic Languages and Literatures and of Oriental History, Emeritus, June 29, 1939.

Charles Rupert Stockard, Professor of Anatomy in the Medical College in New York City, April 7, 1939.

William Crooks Thro, Associate Professor of Medicine, April 6, 1939.

Henry Asmus, Assistant Professor of Farriery, March 1, 1939.

Max Adams Shepard, Assistant Professor of Government, June 28, 1939.

Glen Parker Van Eseltine, Associate in Research in the New York State Agricultural Experiment Station at Geneva, November 15, 1938.

During the year six members of the University Faculty retired on account of age and were elected emeritus professors. The list of these men follows.

O. M. Brauner, Professor of Drawing and Painting.
J. A. Hartwell, Professor of Clinical Surgery.
Vladimir Karapetoff, Professor of Electrical Engineering.
P. M. Lincoln, Professor of Electrical Engineering.
Heinrich Ries, Professor of Geology.
E. A. White, Professor of Floriculture.

Dr. U. P. Hedrick, who retired from active service on January 15, 1938, was elected Director Emeritus of the New York State Agricultural Experiment Station at Geneva.

A number of resignations were presented in the course of the year, as follow:

Administration:

F. M. Coffin, Alumni Representative.
A. M. Palmer, Executive Secretary of the Cornellian Council.

Faculty:

J. C. Hinsey, Professor of Physiology.
J. G. Horsfall, Chief in Research, Agricultural Experiment Station.
G. F. MacLeod, Professor of Economic Entomology and Entomologist in the Experiment Station.
Doris Schumaker, Professor of Home Economics and Adviser on Educational Procedure.
R. A. Moore, Associate Professor of Pathology.
H. W. Ferris, Assistant Professor of Pathology.
E. F. Hopkins, Assistant Professor of Botany.
M. S. Livingston, Assistant Professor of Physics.
L. M. Noss, Assistant Professor of Music.
H. J. Spencer, Assistant Professor of Clinical Medicine.
L. W. Lamb, Extension Assistant Professor of Animal Husbandry.
K. L. Turk, Extension Assistant Professor of Animal Husbandry.

The following appointments and promotions of faculty grade were made in the course of the year:

University Administration:

H. W. Peters, Provost.

College of Architecture:

J. O. Mahoney, Assistant Professor of Fine Arts (part-time).

College of Arts and Sciences:

L. S. Cottrell, Professor of Sociology and Chairman of the Department of Sociology and Anthropology.
F. B. Hutt, Professor of Animal Genetics and Chairman of the Department of Zoology.
C. M. Nevin, Chairman of the Department of Geology.
H. P. Weld, Chairman of the Department of Psychology.
F. O. Waagé, Acting Chairman of the Department of Fine Arts.
H. J. Davis, Goldwin Smith Professor of English Literature.
F. A. Southard, Professor of Economics.
H. W. Thompson, Professor of English, effective July 1, 1940.
H. R. Anderson, Associate Professor of Education.
J. L. Woodward, Associate Professor of Sociology.
A. L. Anderson, Assistant Professor of Geology.
L. L. Barnes, Assistant Professor of Biophysics.
W. F. Bruce, Assistant Professor of Chemistry.
R. T. Gore, Assistant Professor of Music and University Organist.
C. W. Merriam, Assistant Professor of Geology.
J. B. Rosser, Assistant Professor of Mathematics.
R. L. Sharp, Assistant Professor of Anthropology.
R. W. Shaw, Assistant Professor of Astronomy.

College of Engineering:

W. A. Lewis, Jr., Professor of Electrical Engineering and Director of the School of Electrical Engineering.
C. W. Armstrong, Assistant Professor of Mechanics.
W. W. Cotner, Assistant Professor of Electrical Engineering.
W. E. Meserve, Assistant Professor of Electrical Engineering.

College of Medicine:

J. C. Hinsey, Professor of Anatomy and Chairman of the Department of Anatomy.
R. F. Bowers, Associate Professor of Clinical Surgery.
Dean Burk, Associate Professor of Biochemistry.
Norman Cameron, Associate Professor of Psychology.
W. H. Chambers, Associate Professor of Physiology.
Cary Eggleston, Associate Professor of Clinical Medicine.
R. W. Jackson, Associate Professor of Biochemistry.
H. S. Jeck, Associate Professor of Clinical Surgery.
J. H. Richards, Associate Professor of Clinical Medicine.
B. I. Ashe, Assistant Professor of Clinical Medicine.
B. S. Barringer, Assistant Professor of Clinical Surgery.
Herbert Conway, Assistant Professor of Clinical Surgery.
W. A. Cooper, Assistant Professor of Clinical Surgery.
A. L. Dean, Jr., Assistant Professor of Clinical Surgery.
Frank Glenn, Assistant Professor of Clinical Surgery.
Kendrick Hare, Assistant Professor of Physiology.
G. M. Hass, Assistant Professor of Pathology.
Cranston Holman, Assistant Professor of Clinical Surgery.
L. I. Levine, Assistant Professor of Clinical Medicine.

R. W. Linton, Assistant Professor of Pathology.
Douglass Palmer, Assistant Professor of Clinical Medicine.
B. S. Ray, Assistant Professor of Surgery.
M. J. E. Senn, Assistant Professor of Clinical Pediatrics.

New York State College of Agriculture:

B. A. Jennings, Professor of Agricultural Engineering and Agricultural Engineer in the Experiment Station.
G. O. Hall, Associate Professor of Poultry Husbandry and Associate Poultry Husbandman in the Experiment Station.
M. S. Kendrick, Associate Professor of Public Finance.
J. R. Livermore, Associate Professor of Plant Breeding and Associate Plant Breeder in the Experiment Station.
C. M. Mottley, Associate Professor of Biology and Associate Biologist in the Experiment Station.
A. G. Newhall, Associate Professor of Plant Pathology and Associate Plant Pathologist in the Experiment Station.
D. S. Welch, Associate Professor of Plant Pathology and Associate Forest Pathologist in the Experiment Station.
J. P. Willman, Associate Professor of Animal Husbandry and Associate Animal Husbandman in the Experiment Station.
L. L. Barnes, Assistant Professor of Biophysics.
Daniel Clark, Assistant Professor of Botany and Assistant Botanist in the Experiment Station.
R. T. Clausen, Assistant Professor of Botany.
J. P. Hertel, Assistant Professor of Personnel Administration and Secretary of the College.
Paul Kellogg, Assistant Professor of Ornithology.
V. N. Krukovsky, Assistant Professor of Dairy Industry and Assistant Dairy Technologist in the Experiment Station.
W. F. Lamoreux, Assistant Professor of Poultry Husbandry and Assistant Poultry Husbandman in the Experiment Station.
J. K. Loosli, Assistant Professor of Animal Nutrition and Animal Nutritionist in the Experiment Station.
J. I. Miller, Assistant Professor of Animal Husbandry and Assistant Animal Husbandman in the Experiment Station.
H. H. Schwardt, Assistant Professor of Entomology and Assistant Entomologist in the Experiment Station.
L. J. Tyler, Assistant Professor of Plant Pathology and Assistant Plant Pathologist in the Experiment Station.
A. B. Lewis, Acting Assistant Professor of Land Economics (one term).
R. F. Fricke, Associate Professor in Extension Service and Assistant County Agent Leader.
F. E. Heinzelman, Associate Professor in Extension Service and Assistant State Leader Junior Extension.
L. A. Muckle, Associate Professor in Extension Service and Assistant County Agent Leader.
G. H. Serviss, Extension Associate Professor of Field Crops.

H. S. Pringle, Extension Assistant Professor of Agricultural Engineering.

New York State College of Home Economics:
Flora M. Thurston, Professor of Home Economics Education.
Mrs. Pauline W. Fuller, Assistant Professor of Home Economics.
Mrs. Alida S. Hotchkiss, Assistant Professor of Home Economics.
Margaret M. Mercer, Assistant Professor of Home Economics.
Jessie Rhulman, Assistant Professor of Home Economics.
Mark Entorf, Extension Associate Professor of Home Economics.
Mrs. Blanche M. Hedrick, Extension Assistant Professor of Home Economics.
Mrs. Helen P. Smith, Extension Assistant Professor of Home Economics.
Delpha Wiesendanger, Extension Assistant Professor of Home Economics.

New York State College of Veterinary Medicine:
A. G. Danks, Assistant Professor of Surgery.

New York State Agricultural Experiment Station at Geneva:
J. M. Hamilton, Chief in Research.
L. A. Carruth, Associate in Research.
G. D. Oberle, Associate in Research.

Department of Hygiene and Preventive Medicine:
C. Douglas Darling, Assistant Professor and Assistant Medical Adviser.

The Messenger Lectures on the Evolution of Civilization were delivered by George Plimpton Adams, Mills Professor of Mental and Moral Philosophy at the University of California, and Charles Howard McIlwain, Eaton Professor of the Science of Government at Harvard University.

The George Fisher Baker Non-Resident Lecturers in Chemistry were Harold Clayton Urey, Professor of Chemistry at Columbia University; Percy Williams Bridgman, Hollis Professor of Mathematics and Natural Philosophy at Harvard University; and George B. Kistiakowski, Professor of Chemistry at Harvard University.

CHANGES IN THE ORGANIZATION OF THE BOARD OF TRUSTEES

The following deaths are noted with deep regret:

Andrew Joseph Whinery, Alumni Trustee of the University, died on April 23, 1939. He was elected Alumni Trustee in 1935.

Henry G. Barbey, President of the New York Hospital, died on July 24, 1938. Although he was not a member of the Board of Trustees, Mr. Barbey had close administrative connections with the University as Chairman of the Joint Administrative Board of the New York Hospital–Cornell Medical College Association, in which position he has been succeeded by Barklie Henry.

There were many changes which affected the membership of the Board in the course of the year:

Frank H. Hiscock resigned as Chairman of the Board at the October meeting. At the January meeting, Judge Hiscock was elected Chairman, Emeritus, and Mr. J. DuPratt White was elected Chairman of the Board. On April 29, 1939, due to the illness of Mr. White, Trustee Babcock was elected Acting Chairman.

Trustee August Heckscher resigned as Trustee of the University.

Walter L. Todd was elected Trustee to fill the remaining year of Mr. Heckscher's term.

Floyd L. Carlisle was elected Trustee for a term of five years to fill the vacancy caused by the expiration of the term of Trustee Harper Sibley.

Walter C. Teagle and Jervis Langdon were elected Trustees by the Board, each for a term of five years to succeed themselves.

George R. Van Namee was reappointed Trustee of the University by the Governor of the State for a term of five years.

Charles Polletti, by virtue of his election as Lieutenant Governor of the State of New York, became an ex officio member of the Board of Trustees for four years, beginning Jan. 1, 1939.

Halsey B. Knapp, by virtue of his election as President of the New York State Agricultural Society, succeeding Mr. Millard Davis, became an ex officio member of the Board of Trustees for the year 1939.

Paul A. Schoellkopf '06 and Matthew Carey '15 were elected Alumni Trustees of the University, each for a term of five years.

The University Faculty elected Professor W. I. Myers its representative on the Board for a term of five years, beginning January 1, 1939, to succeed Professor Whetzel, whose term expired.

Dean W. S. Ladd was elected by the Faculty of the Medical College in New York City as its representative on the Board of Trustees for a term of three years, beginning January 1, 1939.

The Committees of the Board were subject to the following actions:

Trustee Maxwell M. Upson was elected Chairman of the Committee on Buildings and Grounds, to succeed Trustee White, and was reelected Trustee member of the College of Architecture Council.

Trustee George H. Rockwell was elected a member of the Committee on Buildings and Grounds.

Trustee Robert E. Treman was elected to fill the existing vacancy on the Committee on General Administration and was reelected a Trustee member of the Council on Physical Education and Athletics.

Trustee George R. Pfann was reelected a Trustee member of the Council on Physical Education and Athletics.

Trustee Nicholas H. Noyes was elected a member of the Finance Committee.

Trustee J. W. Parker was appointed a Trustee member of the Board of Governors of Willard Straight Hall to succeed Trustee Stutz.

The administration would like at this time to express to the Board, and to the many departments of the University, its sincere appreciation of the generous cooperation which was accorded during its second year in office. This cooperation not only made possible a number of significant developments in the University undertakings, but added greatly to the satisfactions of the year. As to the future, there remain several major projects which press for early attention. The administration confidently expects that in due course it will be able to report upon their successful initiation and ultimate accomplishment.

EDMUND E. DAY,
President.

SUMMARY OF FINANCIAL OPERATIONS

To the President of Cornell University:

The high-lights of the fiscal year July 1, 1938 to June 30, 1939 are as follows:

In the Endowed Colleges at Ithaca, current income exceeded current expenditures by $2,091.38.

The Medical College (a separate accounting unit) had, as was anticipated, a net deficit of $17,455.98. This was charged against its accumulated surplus of prior years, reducing that item to $35,199.65.

The 1938 Summer Session resulted in a loss of $1,151.72 which was absorbed by the University.

The Colleges of Agriculture, Home Economics, Veterinary Medicine, and the Experiment Station at Geneva all lived within their income.

The Balance Sheet has been improved by the elimination of the accumulated operating deficit of the Endowed Colleges at Ithaca of $565,770.08, and of the accumulated advances made for additions to the educational plant of $883,472.13. By action of the Board of Trustees, these sums were charged against the Cornell Endowment Fund, one of the wholly unrestricted funds that is at the disposition of the Trustees.

The operations of the University's consolidated endowment investments resulted in an average rate of return of 4.0073% on book values. This compares with 4.2867% for the previous year. The tendency is still discouragingly downward. There was a slight improvement over the previous year in the aggregate market value of the endowment investments, and the Reserve against losses was increased from $599,359.29 to $684,979.39.

The budgetary rate of 4.25% that was guaranteed by the Finance Committee for the fiscal year 1938-39 against an actual return earned of 4.0073% necessitated a charge of $67,036.54 against our Income Stabilization Account, leaving a balance as of July 1, 1939 of $313,279.55.

Gifts and donations for the year totaled $1,013,558.11. Of these, $508,777.44 were added to permanent endowments, or are being carried as capital sums.

Respectfully submitted,

GEORGE F. ROGALSKY, Comptroller.

Note: The complete report of the Comptroller and the Treasurer, bearing the certificate of audit of Messrs. Scovell, Wellington & Co., Accountants-Engineers, 111 Broadway, New York City, together with the reports of the Superintendent of Buildings and Grounds, the Manager of Purchases, Manager of Residential Halls, Comstock Publishing Co., Inc., and the Cornell Research Foundation, Inc., will be forwarded to the members of the Faculty and Alumni upon receipt of specific request addressed to the Comptroller of Cornell University, Ithaca, New York.

APPENDIX I

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: I have the honor to present this report of the University Faculty for 1938–39.

THE FACULTY MEMBERSHIP

The number of persons holding membership in the University Faculty during any part of the year (instructors and assistants are not included) was 652, including 493 in the faculty at Ithaca, 136 in the Medical Faculty in New York City, 21 at the Agricultural Experiment Station at Geneva, N. Y., and 2 at the Agricultural Experiment Station on Long Island. Included are 42 emeritus professors at Ithaca, 12 at the Medical College, and 2 at the Geneva Experiment Station.

Six members of the Faculty retired from active service during the year and were transferred to the status of professors emeritus; at the end of the first term in February 1939 Olaf Martinius Brauner, Professor of Drawing and Painting, and Paul Martyn Lincoln, Professor of Electrical Engineering; at the close of the academic year in June 1939 Vladimir Karapetoff, Professor of Electrical Engineering, Heinrich Ries, Professor of Geology, Albert Edward Wells, Sibley Professor of Mechanic Arts, and Edward Albert White, Professor of Floriculture.

Fifteen members of the Faculty died during the year: George Walter Cavanaugh, Professor of Chemistry, Emeritus, on July 2, 1938; Pol N. Coryllos, Professor of Clinical Surgery, on July 26, 1938; Abram Tucker Kerr, Professor of Anatomy, on August 15, 1938; James Ernest Boyle, Professor of Rural Economy, on September 18, 1938; Thomas Lyttleton Lyon, Professor of Soil Technology, Emeritus, on October 7, 1938; Ernest William Rettger, Professor of Mechanics of Engineering, on October 10, 1938; George Charles Embody, Professor of Aquiculture, on February 17, 1939; Henry Asmus, Assistant Professor of Farriery, on March 1, 1939; Frank Latta Fairbanks, Professor of Agricultural Engineering, on March 5, 1939; William Crooks Thro, Associate Professor of Medicine on April 6, 1939; James Clifton Edgar, Professor of Obstetrics, Emeritus, on April 7, 1939; Charles R. Stockard, Professor of Anatomy, on April 7, 1939; Max Adams Shepard, Assistant Professor of Government, on June 28, 1939; Nathaniel Schmidt, Professor of Semitic Languages and Literatures and of Oriental History, Emeritus, on June 29, 1939; and Dr. Jeremiah S. Ferguson, Secretary of the Faculty of Medicine, on June 30, 1939.

ELECTIONS AND APPOINTMENTS

At the October meeting the Faculty elected Professor K. M. Wiegand to succeed himself as a member of the Heckscher Research Council for a term of four years, beginning November 1. At the December meeting Professor W. I. Myers was reported as elected by a mail vote as faculty representative in the University Board of Trustees for a five-year term beginning January 1, 1939. The President appointed Professor H. B. Meek and Assistant Professor W. W. Flexner to the administrative board of the Summer Session for a term of four years beginning November 1. Professors F. G. Marcham, H. E. Baxter, and A. L. Winsor were appointed to the newly established Council on Physical Education and Athletics to serve respectively for terms ending with the calendar years 1939, 1940, and 1941.

THE ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS

Over a very long period, in fact throughout most of the history of the University, the direct control of athletics has been in the hands of an athletic association in which members of the Faculty were included but not as representing the interests of that body. The University Faculty exercised direct responsibility with respect to such matters as the approval of schedules and leaves of absence, and the determination and enforcement of rules of eligibility. In 1935 a change was made in that the affairs of the Athletic Association were taken over by the University and placed in charge of a Board of Athletic Policy responsible to the President and the Board of Trustees. The functions and procedures of the Faculty were not affected by this change.

At the November meeting the Faculty voted approval of a proposal made by a joint committee of the Trustees and the Faculty, later adopted by the Board of Trustees, providing for a greater degree of unification. There has now been set up a council on physical education and athletics that is responsible for policies and for administration in intercollegiate athletics, intramural sport, and physical education and recreation. The council is composed of the Director of Physical Education and Athletics, who is chairman, the President, and the Comptroller, all ex officio, three members to be chosen as the University Faculty shall prescribe, two alumni trustees appointed by the Board of Trustees, and two students to be chosen as the President may direct. The Faculty decided that its representatives are to be elected for terms of three years at the same time and in the same manner as faculty representatives on the Board of Trustees, and that those serving for more than one year shall not be eligible for reelection at the close of their terms. The President announced that for the present the student representatives would be designated by the Student Council.

The regulations provide that in questions relating to leaves of absence or eligibility, all authority shall reside in a subcommittee consisting of the Chairman, the President, and the three faculty members on the Council.

FACULTY COMMITTEE ON THE SCHEDULING OF PUBLIC EVENTS

The multiplicity of public events on the campus having resulted in some difficulties in the scheduling of rooms and in the too close proximity of events of like character, the Faculty voted to set up a committee composed of three appointed members, with the Secretary of the University as its executive secretary, with power to schedule public events. It was stipulated that responsibility for the approval of proposed events would lie as heretofore, the Committee controlling only the time that may be assigned in the calendar. It was further agreed that athletic events, which must be arranged far in advance, would have to be left outside the jurisdiction of this committee.

CREATION OF A NEW ADMINISTRATIVE OFFICE RECOMMENDED

At its session in January the Faculty recommended to the Board of Trustees that the office of Counselor of Students be created, to be under the jurisdiction of the Dean of the University Faculty. With reservations as to the time at which such an officer might be employed and as to the title to be given to him, the adoption of the recommendation by the Board of Trustees was later reported to the Faculty.

A report approved by the Faculty suggested that such an office might operate, as aside from the strictly scholastic functions assigned to the various faculties, to maintain

(a) Informal advisory relationships with respect to student social life, housing, fraternities, student organizations, interests, and activities.

(b) Cooperative contact with the offices of admission, health, and physical education and athletics.

(c) Responsibility for coordinating and, in conjunction with existing agencies, for administering:

The induction of students into the University.

Scholarships and other financial aids.

Counseling of students.
Personnel statistics and information.

The traditional attitude of the Faculty has been to restrict the official relations between students and staff rather closely to the scholastic field and to exercise a minimum of control over students. The experience of the University has in the main justified that policy and there is no intent to make any fundamental change from it. The purpose of the proposed new office is rather to provide for a full examination of all the subsidiary parts of the University enterprise in order to determine their total effect upon students, with the hope of finding ways of improving the various services already established.

CORNELIUS BETTEN,
Dean of the University Faculty.

APPENDIX II

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I have the honor to present the report of the Graduate School for the year 1938–39.

ADMISSION AND ENROLLMENT

Statistics of enrollment and of candidacy for advanced degrees are contained in the tables attached to this report. Several special comments are pertinent.

The total enrollment during the academic year 1938–39 was 1049, an increase of nearly 100 over the previous year, and of nearly 300 over the year 1934–35. This increase—nearly 40 per cent during the past five years—has taken place notwithstanding the fact that there has been during this period a very considerable rise in our requirements for admission and for graduation with advanced degrees. Part of the increase parallels the country-wide upswing in graduate enrollments following the trough of the depression; part is due to the increased attractiveness of our offerings in several fields. Except in those few fields in which the number of graduate students is not large, we should probably not permit the enrollment for graduate work to increase much farther.

We should not, however, restrict enrollment by setting an arbitrary upper limit either in total number of students or in number in any given field. Rather, we should exercise still greater care in admitting students. Of course, we wish to give opportunities for advanced study to every capable, deserving student—up to the limit of our resources in personnel and equipment. But graduate work demands that the professor give so much attention to the individual student that the number of students for whom a professor is responsible must be kept reasonably small. There seems to be no reason, at present at least, to change our *method* of admission. It will be recalled that we now solicit advice concerning each application from the professor (or group of professors) in the applicant's proposed major field of work. The members of the faculty in any field, therefore, have the opportunity not only of fixing standards for admission but of declining to take more students if the maximum number that can be accommodated in that field has already been enrolled.

During the academic year 54 per cent of the graduate students were candidates for the Ph.D.; 41 per cent for the several masters' degrees; and 5 per cent were resident doctors and non-candidates. For the summer of 1938 the corresponding percentages were 23 per cent, 68 per cent, and 9 per cent, respectively. Nearly 30 per cent of the graduate students in the summer were candidates for M.S. in Ed.

The following table compares the distribution of graduate students among the several fields for 1934–35 and 1938–39.

	1938–39	*1934–35*
Languages and Literatures	11.9 per cent	12.9 per cent
History, Philosophy, and Political Sciences	17.2	19.4
Physical Sciences	14.9	19.2
Biological Sciences	22.6	25.2
Agricultural Sciences	15.1	7.2
Engineering and Architecture	8.6	9.4
Education	9.2	4.7

During this period there have been significant increases in the proportion of students in Agricultural Sciences and in Education. It is gratifying to note that approximately 30 per cent of the graduate students are in the humanities and social studies; and that there has been no appreciable decrease in this proportion during the past five years.

A little less than one fourth (24.1 per cent) of our graduate students had their undergraduate training at Cornell. The remainder come from approximately 275 universities, colleges, and technical schools of this country and abroad. Eighty-eight per cent of our students come from the United States. The remainder (125; 12 per cent) come from 22 foreign countries.

WORK UNDER "PERSONAL DIRECTION"

It will be observed from Table I that we have, in round numbers, 150 students each summer working under the personal direction of some member of the faculty. With few exceptions, these students are continuing during the summer the research begun during the previous academic year. Some of them take courses in the summer session. But major responsibility for directing their work falls on the members of the faculty who generously give their time during the vacation period, with the satisfaction that comes from helping industrious students as their only compensation.

From the student's standpoint this opportunity of continuing his work during the summer is advantageous. With uninterrupted time he can usually make substantial progress in research. In some fields research must be done during the summer. Frequently also it is advantageous to the faculty member to have a research problem, in which he is interested as a part of his general program in research, continued without a summer's interruption. But in some cases the moral obligation which the professor feels to accept direction of a student's work during the summer imposes duties which may well become burdensome. The total volume of work of this kind has grown to the point where it now seems desirable to give it more substantial recognition. It is probable that the Administrative Board of the Summer Session will consider the problem in the near future.

MASTER OF EDUCATION

The Faculty, at its January meeting, approved the recommendation of the Faculty of the Graduate School of Education that the degree Master of Education be established to be administered by the Graduate School of Education under the jurisdiction of the Graduate School. Students who have completed the first four years of the five-year program in teacher education administered by the Graduate School of Education may complete the requirements for M.Ed. in a minimum of one additional year.

NEW PLAN OF STUDY FOR CANDIDATES FOR A.M., M.S., OR M.S. IN AGR.

During the year the Faculty made some major changes in the requirements for the degrees A.M., M.S., and M.S. in Agr. (All other Masters' degrees offered by the Graduate School are under the autonomous control of the several divisions.) Heretofore a candidate for any of these degrees has been required to select a major subject and a minor subject; to spend a minimum of two terms (or four* summer sessions) working on these subjects under the direction of a special com-

*Five summers for those who begin candidacy subsequent to July 1, 1939.

mittee; and to present a thesis (or essay) and pass a final examination. Major and minor subjects approved for selection are sufficiently restricted so that in a year of study a student can acquire a modest degree of competence in his field of specialization. This plan of study (hereafter to be known as Plan A) is intended primarily as a basis for further study and research or for professional purposes. There are no requirements in semester hours under Plan A.

There are many students, however, who desire, in a year of study at the graduate level, to secure a somewhat broader training than is permitted under Plan A. Among such students are prospective or in-service teachers in secondary schools as well as those who, for a variety of reasons, wish to supplement a four-year undergraduate course by a year of advanced study. To meet the needs of these students the Faculty, at its January meeting, adopted an optional plan, Plan B, which candidates for any of the above-mentioned Masters' degrees may follow.

Students selecting Plan B must work for a minimum period of two terms (or five summer sessions) and must complete at least thirty semester hours of advanced work, of which approximately one half must be in a chosen "field of concentration." The remaining half may be distributed among subjects contiguous to his field of concentration, in the discretion of his special committee. The approved fields of concentration are broader than the major and minor subjects for Plan A. A thesis may be presented, but in lieu of a thesis a substantial part of the candidate's work in the field of concentration must be devoted to studies requiring original investigation, organization of material, or criticism. Plan B becomes operative with the Summer Session of 1939. *It should be emphasized that it is the intention of the Faculty to maintain standards for admission and graduation under Plan B at least as high as under Plan A.*

GRADUATE TRAINING FOR TEACHERS IN SECONDARY SCHOOLS

The establishment of the degree M.Ed. and of Plan B for the degrees A.M., M.S., and M.S. in Agr. provides at Cornell the necessary administrative machinery for offering to students who plan to enter secondary-school teaching a year of special training adequate to meet varied needs. In the year of work leading to M.Ed. emphasis is placed on professional training for teaching, with some opportunity to take work in subject-matter fields. In Plan B major emphasis will ordinarily be placed on subject-matter fields, with some opportunity to take advanced courses in Education.

These plans, supplementing each other as they do, merit the unqualified support of the entire Faculty. Education at the secondary-school level is so basically important in our democracy that it requires the very best teachers that can be provided. We should admit to candidacy for these degrees only those students who combine keen intellects with promise of superior ability in teaching. And we should give them the best training that Cornell has to offer.

RESEARCH

In previous reports I have frequently called attention to the importance of providing more adequate research facilities for both faculty members and graduate students. This continues to be our greatest single need in carrying forward our graduate program, as well as in making it possible for Cornell to do its proportionate share in contributing to the advancement of knowledge. It is a commonplace to remark that faculty research and graduate study are not only mutually complementary, but indeed are inseparable. The very essence of graduate study, at whatever level and for whatever advanced degree, is the development on the part of the student of habits of and of ability in original and independent thinking. This applies just as much to prospective teachers in secondary schools as to those who contemplate a career of research in science. Conversely, it is almost axiomatic that only if the members of the faculty are actively engaged in research can they function effectively as teachers and leaders of graduate students and provide them with live, worth-while problems for advanced study and research.

Very little research, in any field, can be carried on nowadays without money to

provide facilities. This is not because of changing fashions in research, but because the vast accumulation of knowledge in recent decades has inevitably made research more complex. Here and there it may be possible even now to find a problem of the ten-penny-nail-and-shoe-string kind. But even such a problem, *if followed along logical lines*, will soon lead to the necessity of providing more elaborate and, usually, more expensive equipment, whether of apparatus in experimental sciences or of books in the humanities and social studies. Unless funds for such purposes are available, the line of research must be abandoned and another nail-and-string problem found—an inefficient way of carrying on research but a very effective way of discouraging a faculty.

This problem of providing funds for research is not confined to Cornell. Few universities have funds adequate to meet ever-pressing needs, let alone to carry on programs which they regard as essential. Nevertheless, when one considers the vast sums spent in industrial research, investigators in universities have given a commendable account of their stewardship. For traditionally, it is in the universities that there have been discovered and developed those ideas, concepts, and principles that have laid the foundation for future progress. With all the changes that have taken place in the structure of human society in recent decades, no other institution has emerged capable of assuming this function of universities. On the contrary, these very social changes and the problems which they raise impose on universities as never before an obligation to undertake basic researches in all fields.

Our greatest need at Cornell is for an adequate endowment for research, the income from which can be allocated to individual professors or to departments to meet needs as they arise. Such a fund would not only greatly hearten the present staff, but would make it possible to attract to Cornell, and into academic research, many capable investigators who now find more attractive opportunities elsewhere.

Much progress can be made, particularly in the absence of any special endowment for research, by soliciting special fluid funds from outside sources in support of specific research problems or fields.

It is to be hoped that the attention of friends of Cornell may be called to these opportunities to contribute to the social and material advancement of civilization by enabling the University to continue and modestly to extend its program of research.

F. K. RICHTMYER,
Dean of the Graduate School.

TABLE I

STATISTICS OF ATTENDANCE OF GRADUATE STUDENTS

A. TOTAL ENROLLMENT

	1938–39	*1937–38*	*1936–37*	*1935–36*	*1934–35*
Number of students registered during the academic year	1049	955	936	816	753
Number of students registered during the summer, as below	815	829	802	736	625
Summer Session	649	641	634	571	491
Personal Direction	132	188	168	165	134
Candidate for Degree Only	32				

B. COMPARATIVE ENROLLMENT OF GRADUATE STUDENTS FOR FIVE-YEAR PERIODS

1908–09	*1913–14*	*1918–19*	*1923–24*	*1928–29*	*1933–34*	*1938–39*
310	386	305	529	767	791	1059

C. NEW GRADUATE STUDENTS

	During Academic Year 1938–39	*Summer Session 1938*
Ph.D. degrees	120	18
A.M. and M.S. degrees	205	79
Professional Masters' degrees	76	84
Resident Doctors	6	0
Non-candidates	31	28
Withdrawals after registration	0	0
Total	438	209

TABLE II

GRADUATE STUDENTS RECEIVING DEGREES, CLASSIFIED ACCORDING TO THE DEGREE RECEIVED

	1938–39	*1937–38*	*1936–37*	*1935–36*	*1934–35*
Masters' Degrees					
Masters of Arts	81	65	74	72	48
Masters of Arts in Education	4	7	18	10	10
Masters of Science	69	75	82	70	49
Masters of Science in Education	28	33	24	13	5
Masters of Science in Agriculture	17	15	10	13	9
Masters of Science in Engineering	22	11	10	7	7
Masters of Forestry	0	4	3	1	1
Masters of Laws	0	1	0	1	0
Masters of Chemistry	0	2	3	3	0
Masters of Architecture	1	1	0	3	1
Masters of Fine Arts	0	1	1	1	0
Masters of Landscape Architecture	1	1	0	0	0
Masters of Chemical Engineering	2	0	0	0	0
Masters of Civil Engineering	11	16	16	16	11
Masters of Electrical Engineering	1	1	2	0	0
Masters of Mechanical Engineering	3	4	2	3	2
Total Masters' Degrees	240	237	245	213	142
Doctors of Philosophy	130	131	124	124	136
Doctors of the Science of Law	0	0	1	0	0
Total	370	368	370	337	279

TABLE III

GRADUATE STUDENTS CLASSIFIED ACCORDING TO THE DEGREES FOR WHICH THEY ARE CANDIDATES

	Academic Year 1938–39	*Summer 1938*
Doctors of Philosophy	562	189
Doctors of the Science of Law	0	0
Masters' Degrees, as below		
Masters of Arts	148	142
Masters of Arts in Education	1	15
Masters of Science	169	113
Masters of Science in Education	27	231
Masters of Science in Agriculture	25	22
Masters of Science in Engineering	30	19
Masters of Forestry	0	0
Masters of Laws	0	0
Masters of Chemistry	0	0
Masters of Architecture	2	0
Masters of Fine Arts	1	0
Masters of Landscape Architecture	2	0
Masters of Chemical Engineering	4	0
Masters of Civil Engineering	14	8
Masters of Electrical Engineering	2	0
Masters of Mechanical Engineering	7	1
Non-candidates:		
Resident Doctors	11	8
Non-candidates	42	40
Others (withdrawals, duplicates, etc.)	2	27
Total	1049	815

TABLE IV

GRADUATE STUDENTS CLASSIFIED ACCORDING TO THE GROUP IN WHICH THE MAJOR SUBJECT FALLS

	1938–39	*1937–38*	*1936–37*	*1935–36*	*1934–35*
Group A, Languages and Literatures	125	114	108	109	97
Group B, History, Philosophy, and Political Science	180	165	172	153	148
Group C, Physical Sciences	156	151	139	135	145
Group D, Biological Sciences	237	236	224	196	190
Group E, Engineering, Architecture	90	88	80	64	71
Group F, Science Departments, New York City	7	7	8	10	12
Group G, Agricultural Sciences	158	116	113	96	54
Group H, Law	0	1	2	4	1
Group I, Education	96	77	71	49	35

TABLE V

INSTITUTIONS FROM WHICH GRADUATE STUDENTS RECEIVED THEIR FIRST DEGREES

Agnes Scott College	1
Alabama Polytechnic Institute	1
Alberta, University of	3
Alfred University	3
Allegheny College	2
Alma College	1
American University of Beirut	1
Amherst College	2
Arizona, University of	4
Arizona State Teachers College	1
Arkansas, University of	3
Atlanta, University of	1
Augustana College	1
Baker University	2
Barnard College	1
Berea College	1
Bombay University	1
Bonn, University of	1
Boston University	1
Bowdoin College	1
Bradley Polytechnic Institute	1
Bridgewater Teachers College	1
Brigham Young University	2
British Columbia, University of	6
Brooklyn College	4
Brown University	3
Bucharest, University of	1
Bucknell University	3
Buenos Aires, University of	1
Buffalo, University of	5
Butler University	1
California, University of	19
California, University of, at Los Angeles	5
California Institute of Technology	1
Canisius College	1
Carnegie Institute of Technology	1
Catholic University at Peking	1
Centre College	1
Cheyney State Teachers College	1
Chiao Tung University	7
Chicago, University of	5
Cincinnati, University of	1
Citadel, The	1
Clark University	1
Clemson Agricultural College	9
Coe College	2
Colby	1
Colgate University	8
Colorado College	1
Colorado State College	9
Colorado, University of	3
Columbia University	6
Connecticut State College	5
Copenhagen, University of	1
Cornell University	253
Dartmouth College	13
Davidson College	5
Dayton, University of	1
Delaware, University of	1
Denison University	1
De Pauw University	3
D'Youville College	2
Drury College	1
Earlham College	1
East Central Teachers College, Ada, Okla	1
Eastern Illinois State Teachers College	1
Eastern Kentucky State Teachers	1
Elmira College	8
Florida, University of	5
Franklin and Marshall	1
Fuh Tan University	1
Fukien Christian University	2
Furman University	2
George Washington University	2
Georgetown College	2
Georgia State College for Women	2
Georgia School of Technology	1
Gettysburg College	4
Goucher College	1
The Great China University	1
Hamilton College	8
Hampton Institute	1
Harvard University	2
Hastings College	1
Haverford College	1
Hawaii, University of	3
Hiram College	3
Hobart College	6
Hokkaido Imperial University	3
Howard University	1
Hunan University	1
Hunter College	10
Huron College	1
Idaho, University of	1
Illinois College	1
Illinois, University of	16
Indiana Central	1
Indiana University	3
Institute of Musical Art	1
Iowa State College	11
Iowa State Teachers College	1
Iowa State, University of	3
Iowa Wesleyan College	1
Johns Hopkins	2
Juniata College	1
Kalamazoo College	3
Kansas State Agricultural College	8
Kansas State Teachers College at Emporia	1

Kansas, University of	2
Kentucky State Industrial College	1
Kentucky, University of	3
Keuka College	2
Lafayette College	1
Laval University	6
Lehigh University	2
Louisiana State Normal College	1
Louisiana State University	6
Louisville, University of	1
Lynchburg College	1
McGill University	5
McMaster University	3
Madrid University	1
Maine, University of	6
Manitoba, University of	2
Mansfield Teachers College	1
Marietta College	1
Marshall College	2
Maryland, University of	4
Maryville College	1
Massachusetts Institute of Technology	4
Massachusetts State College	8
Miami University	3
Michigan State College	7
Michigan State Normal College	1
Michigan, University of	3
Middlebury College	2
Mills College	2
Minnesota, University of	10
Mississippi State	1
Mississippi, University of	1
Missouri, University of	11
Monmouth College	2
Montana, University of	1
Montana State College	3
Montreal, University of	11
Morehead State Teachers College	1
Mount Holyoke College	5
Muhlenberg College	1
Munich Polytechnic Institute	1
Nankai University	1
Nanking, University of	6
Nanking Theological Seminary	1
National College of Education	1
National Conservatory of Music in Shanghai	1
National School of Agriculture, Lima, Peru	2
Nebraska, University of	8
Nebraska Wesleyan University	1
Nevada, University of	1
New Brunswick, University of	2
New Hampshire, University of	9
New Jersey College for Women	1
New Mexico, University of	1
New York, College of the City of	11
New York State College for Teachers	5
New York University	4
Newark College of Engineers	1
North Carolina Agricultural and Technical College	1
North Carolina State	1
North Carolina, University of	2
North Dakota, State College	4
North Texas State Teachers College	1
Northwestern University	1
Oberlin College	13
Ohio State University	8
Ohio, University of	2
Ohio Wesleyan University	1
Oklahoma Agricultural and Mechanical College	4
Oklahoma City University	1
Omaha, University of	1
Ontario Agricultural College	3
Ontario Veterinary College	1
Oregon State College	3
Oregon, University of	2
Park College	2
Parsons College	1
Peabody College for Teachers	1
Peiyang University	1
Peking University	2
Pennsylvania State College	12
Pennsylvania, University of	2
Philadelphia College of Pharmacy and Science	1
Philippines, University of the	5
Pittsburgh, University of	1
Pomona College	2
Pretoria University	1
Princeton University	1
Puerto Rico, University of	6
Purdue University	6
Queens University	2
Radcliffe	1
Reed College	3
Rensselaer Polytechnic Institute	4
Rhode Island State College	1
Rice Institute	1
Richmond, University of	3
Roanoke College	1
Rochester, University of	11
Rockford College	1
Rollins College	1
Royal Technical College, Copenhagen	1
Rutgers University	1
St. Andrews Seminary	1
St. Bonaventure College	1
St. Cloud State Teachers	2
St. John's University	2
St. Lawrence University	1
St. Olaf College	1
St. Thomas College	2
San Diego State College	1

Saskatchewan, University of	2	Vassar College	2
Seattle Pacific College	1	Vermont, University of	3
Simmons College	4	Virginia Polytechnic Institute	6
Slippery Rock State Teachers College	1	Virginia State College	2
Smith College	1	Virginia, University of	3
Soochow University	1	Wabash College	2
South Africa, University of	2	Warsaw Agricultural College	1
South Carolina, University of	1	Warsaw University	1
South Dakota State College	1	Washburn	1
Southern California, University of	3	Washington and Lee	2
Springfield College	1	Washington State College	3
Stanford University	2	Washington University	2
Stellenbosch University	1	Washington, University of	8
Syracuse University	9	Waynesburg College	1
Temple University	2	Wellesley College	2
Tennessee, University of	2	West Texas State Teachers College	1
Texas Agricultural and Mechanical College	4	West Virginia State College	1
Texas Technological	1	West Virginia, University of	2
Texas, University of	1	Western College, Oxford, Ohio	1
Toronto, University of	9	Western Ontario, University of	2
Trinity University	1	Western Reserve	2
Tsing-hua University	3	Westminster College	2
Tuskegee Institute	3	Wheaton College	4
Union College	8	Wichita University	1
United States Military Academy	8	Williams College	5
Ursinus College	1	Wilson College	3
Utah State Agricultural College	9	Wisconsin, University of	11
Utah, University of	3	Worcester Polytechnic Institute	1
		Yale University	1
		Yenching University	2

TABLE VI

GEOGRAPHICAL DISTRIBUTION OF GRADUATE STUDENTS

Alabama	1	Montana	4
Arizona	3	Nebraska	12
Arkansas	4	New Hampshire	11
California	29	New Jersey	18
Colorado	8	New Mexico	1
Connecticut	9	New York	421
Delaware	3	North Carolina	8
District of Columbia	6	North Dakota	2
Florida	7	Ohio	30
Georgia	5	Oklahoma	8
Idaho	2	Oregon	8
Illinois	28	Pennsylvania	51
Indiana	15	Rhode Island	3
Iowa	14	South Carolina	12
Kansas	9	South Dakota	6
Kentucky	11	Tennessee	4
Louisiana	6	Texas	10
Maine	9	Utah	14
Maryland	9	Vermont	5
Massachusetts	25	Virginia	14
Michigan	13	Washington	8
Minnesota	11	West Virginia	7
Mississippi	4	Wisconsin	9
Missouri	12	Wyoming	3

United States Possessions	
Hawaii	3
Philippine Islands	2
Puerto Rico	7
Total Number of Students from United States	924
Afghanistan	1
Argentina	1
Belgium	1
British Guiana	1
Canada	57
China	35
Denmark	1
Finland	1
Germany	2
Greece	1
India	2
Korea	1
Lebanon	1
Nicaragua	1
Palestine	2
Peru	2
Poland	2
Roumania	1
Siam	5
South Africa	4
Spain	1
Turkey	1
Total Number of Students from Foreign Countries	125

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: I have the honor to present this report of the College of Arts and Sciences for the academic year 1938-39.

ENROLLMENT

The total enrollment for the year has been 1886, a number almost identical with the enrollment of 1936-37 which was 1885, and ninety-five less than the enrollment of 1937-38 which was 1981. This decrease is more than accounted for by the discontinuance of our course in Chemistry and the transference of Chemical Engineering to the College of Engineering. In this year's number there are included only 22 students candidates for the degree Bachelor of Chemistry whereas in last year's enrollment there were 183 such candidates. Students admitted this year on transfer from other colleges numbered 96, and in the previous year 103.

In order to gain a better understanding of the teaching load of our faculty, a reference to the figures compiled by the University Registrar on "student-hours" is more significant than the bare statement of students enrolled in the College. Last year the total number of student-hours in Arts subjects was 79,378, an increase of 5.3 per cent over the number 75,345 recorded for 1936-37. This year there is an increase to 82,342 student-hours, or 3.7 per cent over the number in 1937-38. Because of the reduction in number of Arts students the increase is attributable to a larger enrollment of students from the Colleges of Agriculture and Engineering. The number of student-hours of Arts students decreased from 52,462 to 49,822 in Arts courses, and from 6597 to 6094 in non-Arts courses. The number of student-hours of students of Agriculture in Arts courses increased from 12,881 to 13,540, and of students of Engineering from 8706 to 13,397. Altogether the percentage of instruction to non-Arts students taking College courses increased from 33.9 to 39.4.

These figures will indicate something of the increase of teaching which the College has assumed in those of its courses which serve the University at large. While the Trustees have recognized the need for additional instructors, it has not been easy to supply the facilities of laboratory space, class-rooms, offices for the faculty, and other paraphernalia needed in order to carry our work effectively.

The departments most affected by last year's sudden increase were Chemistry, English, Physics, and Mathematics, each of which had an increase in student-hours varying from 800 to 1000, the percentage increase varying from seven to sixteen.

The two most pressing needs of the College may be inferred from these statistics. The first requirement is a larger and more experienced staff of instructors, especially in the service courses of the departments named. The second is for more adequate housing in order that instructors may individualize their work to a higher degree through personal conferences with their students.

ADMINISTRATIVE CHANGES

Three important administrative changes have been made during the year. The first is a reorganization of the Advisory Board for Underclassmen. Hitherto advice to underclassmen has been given by a large group of advisers, as many as sixty. The administration of records, however, has been in the hands of a small board of nine members with the Dean and Assistant Dean serving *ex officio*. The reorganized Board will consist of twenty members in addition to its chairman and the two Deans. This Board will henceforth act both as advisers and as a committee on records. The members will follow the students assigned to them individually in the usual adviser-student relation until transfer is made to a major field of work. A sub-committee consisting of the Chairman of the Board, the Dean, and the Assistant Dean will take the initiative in passing on all student petitions and explanations of unsatisfactory work. The subcommittee is authorized by the Faculty to take action on minor matters of adjustment and will prepare all other cases for presentation to the Board.

It is hoped that this plan will greatly simplify our procedure of registration and supervision of students during their first year of residence and until they have found a field of special interest in which to concentrate. Although the new board is a large one, it will include those who, as advisers, are best qualified to speak for the student when his name comes before it for action.

The new plan is an outcome of several years of experimentation under the recent chairman of the board, Professor J. G. Jenkins, a former member of the faculty, and the present chairman, Professor F. A. Southard, jr.

The second administrative change is the reorganization of our work in Zoology to include the major portion of the staff in Medical Sciences which formerly constituted the Faculty of Medicine in charge of first-year instruction at Ithaca. The reconstituted department is under the chairmanship of the Professor of Animal Genetics in the College of Agriculture, Professor F. B. Hutt, who has been voted a seat in the faculty of Arts and Sciences. Funds for the maintenance of the department are to be supplied jointly by the two colleges. The membership of the staff will include those of the previous department of Zoology in the College, and those of the medical faculty, excepting Professor Howard S. Liddell and his associates who now join the Department of Psychology as a division of Psychobiology. Also included in the membership of the department is a list of men selected from the Departments of Entomology and Animal Husbandry in the College of Agriculture, and the Professor of Veterinary Physiology.

This departure is an attempt to associate from various faculties of the State and endowed colleges, men of common interest in a common subject of teaching and research. If successful, the plan will suggest other administrative changes to further a community of interests among those assigned to different faculties with different sources of support.

The third administrative change is the establishment of a new Department of Sociology and Anthropology. As Chairman, Professor L. S. Cottrell, jr. has been transferred from the Department of Rural Social Organization in the College of Agriculture to the College of Arts and Sciences as Professor of Sociology. With him will be associated Associate Professor J. L. Woodward, Assistant Professor R. L. Sharp, and Dr. Weintraub, who were formerly members of the Department of Economics.

NEW COURSES

New courses which have been authorized include one in Creative Drawing offered to our students by the College of Architecture, and another in Dramatic Interpretation offered by the Department of Public Speaking. These courses deserve mention because they are open to a selected group of freshmen who

give evidence of special talent as shown by previous experience in their secondary schools. It appears appropriate that students of special talent should be given opportunity to express it under direction, not merely in extra-curricular activities, but also in formal courses which can take advantage of a special interest to lay the foundations for advanced study of the fine arts. It is my hope that it may be possible to offer to selected students similar courses in both music and creative writing.

The faculty has authorized a new two-year course which will serve as an introduction to, and a foundation for, the study of Economics, Government, Sociology, and Anthropology. With the approval of the departments concerned this course will be planned and administered by a committee of three members from the three departments. Associate Professor J. L. Woodward will be chairman and chiefly responsible for the syllabus of the course and its direction when first offered in 1940-41. With him will be associated Professor F. A. Southard, jr., of the Department of Economics, and a member of the Department of Government.

When offered, the first year of this course will be open to freshmen. The course will be planned to meet the requirement of the five-year program for prospective teachers which has been adopted by the Graduate School of Education. The continuation of the course in its second year will complete a general survey of the fields covered, and will prepare students for advanced work without requiring of them the usual introductory courses which the several departments now offer.

This project is a departure from previous practices, setting up as it does a new avenue of approach to advanced studies in the fields covered. It will also enable students to obtain a broad and reasonably thorough survey of economics, government, sociology, and anthropology in a single course.

When first offered, preference in election of the course will be given to students who propose to follow the five-year plan leading to the degree Master of Education. It is expected that experience may show whether a course of this kind is as adequate an introduction to the social studies as are the more specialized courses now offered.

SPECIAL AIMS AND NEEDS

In discussing the increase of enrollment in courses offered by the College, reference should be made to the general need for better trained teachers, and for better facilities with which to work. The Committee on Educational Policy has given considerable thought to these problems and they are specifically reflected in the reports which have been submitted by various departments. The Committee discussed at length the possibility of organizing the service courses in the University under a special leadership. Since these courses draw students from all branches of the University, it was thought that an organization crossing college lines might be helpful both in revealing weaknesses where they may appear, and in promoting desirable changes in content, method of instruction, and teaching personnel. The courses which might come under such special supervision are the general introductory courses required by certain colleges of their students, the introductory work in linguistics and mathematics which is often undertaken to make up deficiencies of secondary school training, courses more or less terminal in character which are intended to round out a general education, and, finally, those courses in Military Science, Physical Education, and Hygiene which at present lack supervision by any college.

An interesting suggestion for the solution of one of the largest of these special problems, that of literacy, has been made by the Professor of Public Speaking. Professor Drummond suggests, in effect, that a clinical term's work be required of all entering freshmen, during which time the reading, writing, and speech of each student shall be individually tested. As a result of these examinations the student will be assigned to such work as is most appropriate to his needs. For those who show any marked defect, remedial work will be planned, while for those who demonstrate competence, no further requirement will be imposed beyond the first term. In view of the difficulty of securing a proper level of literacy in all students by a course in Freshman English, here is a way of determining the student's need, followed by a training calculated to satisfy it. Although the cost

of conducting such a clinic might be considerable, the results should be rewarding; for until one knows with some definiteness what a student's defects are in reading, speech, and writing, it is impossible to lend the aid calculated to correct them. The study of literature which accompanies the introductory course in English, though important, can hardly be defended as a requirement of all students. One of the reasons why such introductory courses fail to achieve the success hoped for is the very fact that they are compulsory. To adapt a single course to the needs of more than 1200 students is perhaps itself an impossibility.

Since this suggestion, as well as the previously mentioned organization of a division of general studies, are of interest not only to the College of Arts and Sciences but to all the undergraduate colleges, the subject has been referred by the Committee on Educational Policy of the College to the Committee on University Policy which now has it under consideration.

Special needs indicated in the reports made by departments of the College will be brought to your attention separately. There are, however, two suggestions which I wish to underscore in this report. One refers to the need of strengthening our work in general and comparative linguistics. Speech is not only an art but a science. We all practice the art, and the practice makes possible the rewarding study of literature. But the study of philology at Cornell is not cultivated as it might be in a great university. There are, to be sure, relatively few students who can or will interest themselves in the intensive study of language, yet without such study the humanities must languish, and even the social studies become verbose for want of exact philological knowledge. What appears to be needed is some more definite attack upon the whole problem of linguistics, and this can be assured only by the cooperative effort of all the various departments of languages and literatures. An opportunity to introduce the study of Russian is one to be heartily welcomed. We should also have Chinese, Japanese, Sanskrit, and the restoration of Hebrew. Hitherto the study of language has been too highly departmentalized, and the value of much of our work is less than it should be for lack of comparative studies which would throw the whole of this important subject of civilization into a proper perspective.

The second suggestion comes to me from the report of the Chairman of the Committee on Pre-Medical Study. Professor Lawrence, the author of the report, has taken the idea from certain remarks of President Conant of Harvard. The suggestion is that certain students intent on the study of medicine be selected for this purpose during the Freshman year, instead of being obliged to await the outcome of their college work. The advantage of this suggestion lies in the possibility of mapping a program of study in the College without the undue pressure of certain so-called medical subjects into which students flock in order that they may, if successful in these courses, have friends in court when the selection for medical study is made. We have been told by the Dean and by the Assistant Dean of our own Medical School that students in their college years should devote themselves to general education rather than to specialized studies of a kind which they will repeat in the medical school. Could we not make a selection of ten persons during their Freshman year who would be assured of admission to double registration in Arts and Medicine in their senior year, provided they maintained satisfactory records in their work? It should not be difficult to choose so small a number and still be assured of the general ability and fitness of those chosen for the study of medicine. These persons would then be relieved of the obligation now imposed upon pre-medical students "to present," as President Conant says, "a convincing record of scientific work to impress the admissions committee."

It is to be hoped that the recommendation of the Chairman of our Committee may meet with support by the Administration of the Cornell Medical School, and thus permit us to try the plan of inducing our most promising students to enjoy a liberal education during their college years unhampered by an undue load of pre-medical sciences or the hazards of competition at the end of their college course.

CHAIRMEN OF DEPARTMENTS

As a matter of record, I list below the administrative heads and chairmen of the several departments of the College, together with the years in which the chairmanships terminate:

Department of Astronomy,	Professor S. L. Boothroyd, Senior Professor
" " Botany,	Professor K. M. Wiegand, Head
" " Chemistry,	Professor Jacob Papish, Chairman (1944)
" " the Classics,	Professor Harry Caplan, Chairman (1943)
" " Comparative Study of Literature,	Professor Lane Cooper, Senior Professor
" " Economics,	Professor Donald English, Chairman (1940)
" " Education,	Professor J. E. Butterworth, Chairman (1940)
" " English,	Professor H. J. Davis, Chairman (1943)
" " the Fine Arts,	Asst. Professor F. O. Waagé, Acting Chairman (1942)
" " Geology,	Professor C. M. Nevin, Chairman (1944)
" " German,	Professor P. R. Pope, Chairman (1944)
" " Government,	Professor R. E. Cushman, Chairman (1943)
" " History,	Professor M. L. W. Laistner, Chairman (1942)
" " Mathematics,	Professor W. B. Carver, Chairman (1940)
" " Music,	Professor P. J. Weaver, Chairman (1944)
" " Philosophy,	Professor G. W. Cunningham, Chairman (1943)
" " Physical Education,	Professor C. V. P. Young, Senior Professor
" " Physics,	Professor R. C. Gibbs, Chairman (1944)
" " Psychology,	Professor H. P. Weld, Chairman (1940)
" " Public Speaking,	Professor A. M. Drummond, Chairman (1940)
" " Romance Languages,	Professor M. G. Bishop, Chairman (1941)
" " Scandinavian Languages and Literatures,	Professor H. Hermannsson, Senior Professor
" " Sociology and Anthropology,	Professor L. S. Cottrell, jr., Chairman (1944)
" " Zoology,	Professor F. B. Hutt, Chairman (1940)

STANDING COMMITTEES OF THE COLLEGE

The administration of the College is shared by all members of the faculty. In the matter of student records the Dean, the Assistant Dean, and the Chairman of the Advisory Board for Underclassmen constitute a sub-committee to pass on all petitions, to conduct interviews, and to collect relevant information before final actions are taken by the Committee on Academic Records and the Advisory Board.

The members of the standing committees of the College are listed below. It is a pleasure to record the faithful services of all members of these various groups. The dates of retirement of those serving terminal appointments follow their names.

Committee on Educational Policy: C. C. Murdock, 1939; G. H. Sabine (G. W. Cunningham, second term), 1939; F. S. Freeman, 1940; F. A. Southard, jr., 1940; H. B. Adelmann, 1941; E. A. Tenney, 1941; R. P. Sibley, R. M. Ogden, *ex officio.*

Recently elected to succeed Professors Murdock and Sabine are Professors M. G. Bishop and G. W. Cunningham, and to fill the unexpired term of Professor Freeman, who will be absent, Professor A. W. Laubengayer. The place of Pro-

fessor Adelmann, who will also be absent, will be taken by a former member of the Committee, Professor W. A. Hurwitz.

Committee on Academic Records: J. G. Kirkwood, 1939; H. R. Smart (for M. S. Livingston), 1939; †M. A. Shepard, 1939; A. W. Boesche, 1940; V. S. Lawrence, jr., 1940; P. E. Mosely, 1940; J. R. Collins, 1941; W. M. Sale, jr., 1941; R. H. Wagner, 1941; F. A. Southard, jr., R. P. Sibley, R. M. Ogden, *ex officio.*

Advisory Board for Underclassmen: C. C. Greene, jr.; J. L. Hoard; B. L. Rideout; R. F. Bacher; J. D. Burfoot, jr.; W. W. Flexner; P. W. Gates; C. W. Jones; F. A. Southard, jr. (Chairman); R. P. Sibley, R. M. Ogden, *ex officio.*

The newly constituted board, which will take office in September, will have the following membership: R. F. Bacher, L. L. Barnes, W. F. Bruce, J. D. Burfoot, jr., Harry Caplan, Elias Huzar, W. A. Hurwitz, George Kreezer, A. W. Laubengayer, V. S. Lawrence, jr., F. G. Marcham, P. E. Mosely, G. B. Muchmore, B. L. Rideout, Richard Robinson, T. A. Ryan, W. M. Sale, jr., R. L. Sharp, F. O. Waagé, H. S. L. Wiener, F. A. Southard, jr., Chairman, R. P. Sibley and R. M. Ogden, *ex officio.*

Each member is to serve for three years without prejudice to reappointment.

Committee on Boldt and Hall Scholarships: G. I. Dale (Chairman), 1939; R. E. Montgomery, 1940; E. A. Burtt, 1941.

Committee on Conduct of Examinations: H. W. Briggs, 1939; Ralph J. Ludington, 1939; L. M. Noss, 1939; C. L. Rossiter, 1939; Madeleine Weil, 1939; J. L. Woodward, 1939; T. F. C. Muchmore, 1939; Mary S. Hewlett, 1940; J. M. Richards, 1940; L. C. Boochever, jr., 1941; H. A. Myers, 1941; R. J. Walker, 1941; R. P. Sibley and R. M. Ogden, *ex officio.*

Committee on College-Credit Examinations: M. G. Bishop, J. P. Bretz, W. B. Carver, H. E. Howe, R. H. Wagner, F. S. Freeman, Chairman.

Committee on Decoration of Goldwin Smith Hall: M. G. Bishop, F. G. Marcham, and the Dean.

Committee on the Goldwin Smith Reading Room: Otto Kinkeldey, Edwin Nungezer, and the Dean.

Committee on Teacher-Training in the College: H. R. Anderson, M. G. Bishop, Harry Caplan, O. D. von Engeln, B. W. Jones, W. M. Sale, jr., M. L. Hulse, Chairman.

Committee on Pre-Medical Study in the College: H. B. Adelmann, † M.A. Shepard, V. S. Lawrence, jr., Chairman.

During the absence of Professor Adelmann, Assistant Professor W. F. Bruce will act in his place.

R. M. Ogden,
Dean of the College of Arts and Sciences.

† Deceased June 28, 1939.

APPENDIX IV

REPORT OF THE DEAN OF THE LAW SCHOOL

To the President of the University:

Sir: I have the honor to submit the following report regarding the Cornell Law School for the academic year 1938–39.

Complacent contentment with existing methods and present achievements can not be tolerated in education, and particularly in legal education which is potentially so influential upon the next generation of lawyers and their rôle in a vital aspect of social living. There must be a constant re-examination of educational policy in the light of the ends to be achieved.

Among the problems which have been and will continue to be given careful planning by the Faculty are: the perfection of the method of selecting students for admission; the revision of the curriculum; the successful blending of the jurisprudential with the practical point of view, and such improvements in teaching methods as will supply the deficiencies of the casebook method of instruction, deficiencies which, it seems, are receiving increased general recognition.

INTERVIEWS WITH CANDIDATES FOR ADMISSION

This year the Faculty adopted the policy of requiring interviews with applicants for admission, and every candidate for admission in September 1939 has been personally interviewed. In the majority of instances, it has proved practicable to require these conferences to be held at the Law School with one or more members of the Faculty. When this has not been feasible, the assistance of alumni in different parts of the country has been invited. It is gratifying to record that the graduates called upon have enthusiastically accepted this responsibility and have expressed approval of the system. The reports which they have returned to the Law School reflected thoughtful questioning and conscientious appraisal of the candidates. The results of the interviews have been a valuable addition to the detailed information that has in past years been obtained regarding each applicant. In several instances this year, the interview has supplied the determining factor in favor of the candidate's admission or rejection.

PROBLEM COURSES

The report for last year detailed those changes in curriculum and methods that were effected in 1937–38 and also some that were planned for the year 1938–39. Because of the increase of the professorial staff from eleven to twelve, because of the fact that no member of the staff was on sabbatic leave during the past year, and as a result of the rearrangement of course material as outlined in the last report, the program of instruction this year was the fullest that has been offered by the School.

With the creation of the position of teaching fellow the third year problem courses were increased in number and strengthened in effectiveness. Such courses were offered in the following subjects: Business Regulation by Professors Thompson and Washington; Taxation by Professors Whiteside and Stevens; Trusts and Estates by Professor Whiteside; Election of Remedies by Professor Wilson; Jurisprudence by Professor Laube; Legislation by Professor MacDonald; and Federal Procedure by Professor Keeffe. The teaching fellow participated in the conduct of four of these. The Law School was fortunate in securing as the first appointee to this new position Mr. Morris Glushien, A.B. '29, LL.B. '31. He gave splendid cooperation, and, with his ability, practical experience, and enthusiastic industry, contributed substantially to the success of these courses.

The particular subject matter of the various problem courses necessitated slight variations in the methods used, but in all of these courses, the general scheme has been the same and the objectives have been: first, to enliven the interest of students in their third year; second, to supplement the training derived from the analytical study of decided cases with opportunity for searching for, weighing, and applying the law to original unsolved problems; third, to inculcate a comprehensive conception of law and to impress upon the students that the divisions of law with which they become familiar have been, on the whole, artificially established for instructional purposes only.

Three years of experimentation with the new method has proved its advantages both as training and experience for the students, and as an additional basis for judging their qualifications for graduation and their competence for practice. That the students recognize the advantages to them is shown by the eagerness with which they seek admission to these courses and the number of them that they elect. Favorable comment upon the new method has come from widespread sources outside the school.

JURISPRUDENCE

In a sound legal education, there can be no valid distinction between two types of legal training, the one vocational the other cultural. Obviously, the broader training of the second type need omit no vocational aspect; on the contrary, it is a vocational training which, by widening the vision, gives greater competence for effective service to clients and for effective public service in advancing the law.

From the first, when Jurisprudence was added to our curriculum several years ago, it was made available for candidates for the degree of LL.B. in their third

year. This was at the time contrary to the practice then prevailing in most law schools where Jurisprudence was reserved exclusively for candidates for the graduate degrees of LL.M. or J.S.D. We have regarded a study of Jurisprudence as valuable for the practitioner as well as for the advanced student preparing for a teaching career. We have encouraged the election of this course by third year students, and though the proportion taking it is not as large as it should be, the number has been steadily increasing.

Students in all law schools are apt to concentrate upon courses which they regard as having practical, "bread and butter" value, and to shun those which they look upon as educational frills. This habit is fostered by the practice of bar examiners in publishing a limited list of subjects upon which candidates for admission to the bar will be examined. Students can be expected to heed the advice and the warning that is implicit in the publication of this list. Accordingly, the Faculty has requested the New York State Joint Conference on Legal Education, which is composed of bar examiners and representatives of the bench, the bar associations, and the law schools, to consider the advisability of recommending either the abolition or the expansion of the list of subjects published by the New York Bar Examiners.

FIRST YEAR MOOT COURT WORK

The plan of conducting the first year Moot Court work was revised again this year. Greater assistance was made available to the students in the initial stages of the work. For this purpose, each member of the Faculty, as adviser of a group of first year students, assumed the additional responsibility of giving each of his advisees individual instruction in the use of the library and counsel and supervision in the preparation of briefs and the presentation of arguments. Following the practice prevailing in several other schools, a Student Moot Court Board was organized, the membership being drawn from the second and third year classes and being put under the chairmanship of a third year student. Each first year student was assigned to a member of the Board to whom he could turn for assistance in his Moot Court work.

After the period of preliminary instruction by the Faculty advisers, formal arguments were held, one in the first and one in the second term. Each argument was before a bench consisting either of a member of the Faculty or a practicing lawyer or judge, in association with a member of the Student Moot Court Board. The final argument, for which the contestants were selected on the basis of their performance in the preliminary competitive arguments, was held on April 15 before a bench composed of Honorable John T. Loughran, Associate Judge of the New York Court of Appeals presiding, and Honorable Alfred C. Coxe, LL.B. '04, Federal District Judge for the Southern District of New York, and Honorable John C. Wheeler, LL.B. '09, Justice of the New York Supreme Court for the Seventh Judicial District, as associates.

The services conscientiously contributed throughout the year by the members of the Student Board justified its organization. The upperclassmen constituting its membership not only gave helpful cooperation in the conduct of the Moot Court work but also gained useful experience in sitting as associate justices.

To heighten the interest of the first year students in their Moot Court work and to reward industry and ability the Faculty adopted the policy of awarding merit points to students upon the basis of their performances in the several formal arguments. These merit points are added to those gained in formal courses for the purpose of determining the relative standing of students.

FIRST YEAR INTRODUCTORY LECTURES

First year students perennially, and apparently almost universally, experience an initial period of confusion and sometimes discouragement. This condition seems attributable to the following: to the fact that in law school they are being introduced to a different method of study; to a lack of comprehension of the procedural steps by means of which issues are raised for decision in litigation; and to an early disillusionment when they find that law is not certain and is not an exact science. In an effort to improve this situation, a series of introductory lectures

were given to first year students in the opening weeks of the term and as an addition to the regular course work. Professor MacDonald explained the procedural steps in the progress of a law suit and Professor Robinson gave a series of talks calculated to reveal the nature of the law and to survey the content of the various courses.

PRE-LEGAL STUDY: "NON-LEGAL" MATERIAL IN THE LAW SCHOOL CURRICULUM

For many years, the Law Faculty has made available for students in the College of Arts and Sciences its suggestions regarding pre-legal studies. The bulletin prepared by that College for Freshmen entering in the fall of 1938 carried a statement of advice on that subject prepared in the Law School. In view of the fact that we frequently receive from pre-legal students at other institutions requests for suggestions as to their undergraduate studies, the Law School Announcement for 1939–40, for the first time, carries the following statement:

"*Advice as to Pre-Legal Studies.* Lawyers are themselves unable to agree upon a pre-legal course which should be uniformly adhered to by those preparing themselves for a career in the law. Law touches nearly every phase of human activity and consequently there is practically no subject which can be summarily excluded as wholly without value to the lawyer. However, certain cardinal principles which should guide the pre-legal student in the selection of his college courses can be stated. These are:

"(1) Personal intellectual interests should be catered to, for interest begets scholarship and a student will derive most from those studies which arouse or stimulate his interest.

"(2) Attempt to acquire or develop the habit of precision of thought by pursuing such studies as logic, mathematics, physics, chemistry, or other laboratory sciences.

"(3) Consider the special utility of certain subjects to one trained in law, whether he be practitioner, judge, legislator, or teacher of law.

"(4) Fill in with cultural subjects, which, though they have no direct bearing upon law or a legal career, will expand your interests and cultivate a wider appreciation of literature, art, and music.

"The third category needs amplification. Of first importance to the lawyer is ability to express himself clearly and cogently, both orally and in writing. Emphasis should therefore be given to courses in English composition and public speaking. Economics, history, government, and sociology should be stressed because of their near relation to law as a social science and their influence upon the development of the law; ethics, because of its kinship to guiding legal principles; and philosophy, because of the influence of philosophic reasoning upon legal reasoning. Psychology has its place because the lawyer must understand human nature and mental behavior. A comprehension of the principles of accounting is almost indispensable. Some knowledge of the sciences, such as chemistry, physics, biology, and physiology, will prove of practical value to the lawyer with a general practice. For some, broader scientific background, for example in chemistry, physics, or electrical or mechanical engineering, when coupled with training in law, may furnish peculiar qualifications for specialized work in counselling certain types of businesses or for a career as a patent lawyer."

Correlated to the problem of pre-legal studies, is the question of including so-called "non-legal" material in the curriculum of the Law School. The Faculty has not neglected this problem and has been following with interest the experiments that have recently been inaugurated at a few other law schools. It is expected that after having given further thought to the problem during the coming year some conclusions with regard to it can be incorporated in the next report.

HOUSING OF LAW STUDENTS

During the past year, I have been impressed with the need for improved housing facilities for law students. This need was particularly emphasized as a result of my experience in counselling the students who were in scholastic difficulties and in interviewing applicants for admission. The problem, however, is one which

embraces the entire group of men students. Women constitute such a small proportion of the student body that they are excluded from present consideration.

Of essential importance to the graduate student is suitable physical environment. One of the first things that a student entering the Law School discovers is the unwisdom of attempting to live in the house of his fraternity. Students who have occupied rooms in the University dormitories have reported that the predominance of undergraduates living in those buildings makes them undesirable for graduate students.

Law students are consequently forced to seek location in private rooming houses. Entering students are under the handicap of having no University assurance of the suitable character of the accommodations available to them, and of having to defer the selection of a rooming house until they can come to Ithaca, familiarize themselves with geographical locations, and inspect available quarters.

The University has provided a house for a small number of graduate students on South Avenue. The occupants of that house have been mainly students from other departments of the University. The Law School administration has in past years attempted to direct law students to it, but those who have accepted the advice have reported the conditions unfavorable and many of them have moved away after one year's trial.

For students engaged in common professional study, the opportunity for constant association and for exchange of ideas is of inestimable value. Incalculable are the gains in knowledge, viewpoint, opportunity for self expression, and inspiration that the law student derives from living, as well as studying, in association with his fellow students. The present conditions at Cornell which result in dispersing law students among private rooming houses scattered throughout the city supply a problem deserving attention and early solution. The situation would be much improved even if the University could provide housing in small groups in a number of buildings comparable to the Graduate House on South Avenue and reserved exclusively for law students. If this were done, the scale of rentals should be flexible and should run as low as $3.50 and even $3 a week for at least one-third of the occupants. The period of graduate education is long and expensive. At least 40% of our students annually present meritorious applications for financial assistance in addition to what they can earn by gainful employment which competes with their law school work.

NEED FOR ENDOWED SCHOLARSHIPS

The reports of the last two years detailed the sizable proportion of the requests annually received from deserving students for financial assistance. These reports also pointed to the comparative situation of this and other leading law schools with respect to the funds available for rendering such assistance. It is desirable again to emphasize the importance of this problem to the School and to the University. The $3,000 derived from the Walter P. Cooke Loan Fund is annually exhausted in the allotment of student loans. Scholarship aid is derived chiefly from the free tuition scholarships authorized by the Board of Trustees. The total of loan and scholarship assistance is still inadequate. A substantial fund for the endowment of scholarships would improve the school's position and would bring to the University usable income in place of the loss entailed in the existing free tuition scholarships.

THE LAW LIBRARY

For the Law Library, the year has again been one of progress limited, however, by the necessity of painstakingly effected economies. The budget allowance for the purchase and repair of books was $10,000, which represents an increase of $1,000 approved by the Board of Trustees for the year just closed.

A few months ago, it was suggested that the income from the Charles Edward VanCleef Memorial Fund should be made available for purchase of books for the Law Library. This fund was established by Mr. Mynderse VanCleef with the alternative provisions that the income should be used "toward the purchase of books on Medicine, Surgery and in allied subjects for the Ithaca Division of the Cornell University Medical College, also for the purpose of binding and main-

taining the books in the Medical Library. If the income in whole or in part shall not be at any time needed for the foregoing purposes, then so much of the income as shall not be so needed shall be applied toward the purchase of Law books for the College of Law."

In view of the previous action of the Board of Trustees in abolishing the Ithaca Division of the Medical College, the Board voted, at its meeting on June 19 last, that "The income from the Charles Edward VanCleef Memorial Fund, heretofore used for the support of the Library of the Ithaca Division of the Medical College, was, in accordance with the terms of the gift, made available for the support of the Library of the Law School."

As the income from this fund amounts to about $1,000, the position of the Law Library will, commencing with the next fiscal year, be improved to that extent. The Law School administration is indeed grateful to receive this further benefit from Mr. Mynderse VanCleef's generosity and devotion to the University.

During the year, 3,650 volumes were accessioned in the Law Library. This number includes gifts of 490 volumes. Other gifts totalling about 1,000 volumes have not been accessioned but will be held for replacement and trading purposes. Loose-leaf services in the fields of taxation, securities regulation, banking, and labor law were secured. The material furnished by these services is fugitive and the annual investment in them is heavy. Nevertheless, the expenditure was required by the need for up-to-date material for use in the problem courses, and by the importance of familiarizing the students with this comparatively modern tool of the lawyer.

Over 2,000 volumes were repaired and oiled during the year, caring for those sets which received the greatest wear.

For a number of years, we have been receiving the briefs and records on appeal in cases presented to the United States Supreme Court and the New York Court of Appeals. This year, for the first time, we are receiving briefs and records on appeal in cases before the four Appellate Divisions of the Supreme Court of New York. All of this material is of unquestioned value to the Library but the expense of collecting and binding is substantial.

The task of re-cataloguing the entire Law Library is progressing, but, with the limited assistance available for this work, the rate of progress is lamentably slow.

WILLEVER MEMORIAL FUND

Many alumni who had been student assistant librarians during the long period of Mr. Edward E. Willever's service as Law Librarian, expressed the desire, as evidence of their friendship for him and as a recognition of his kindly interest in them, to contribute toward a fund for the establishment of a tribute to his memory. With the approval of the Cornellian Council, small contributions are being solicited for this purpose from this limited group of law school graduates.

One of Mr. Willever's chief interests and one of his important contributions to successive generations of law students was the establishment and development of the loan collection of general reading about law and lawyers. It seems appropriate to perpetuate this as the Edward E. Willever Collection. Accordingly, it is planned that the contributions to the Willever Fund shall be used, first, to obtain a plaque to be placed over the collection and a bookplate to be inserted in each volume of it, and second, to purchase additions to the collection from time to time.

ETCHING OF MYRON TAYLOR HALL

A few months ago, Honorable Charles Garside, LL.B. '21, expressed a desire and predicted a similar desire on the part of other alumni of the Law School to possess an etching of Myron Taylor Hall. After consultation with Dean Clarke, Mr. Chester Price of New York was selected to execute this commission. The etching will be ready to be offered to interested alumni in the early fall. For the realization of this desirable undertaking, the Law School and its alumni are indebted to Mr. Garside not only for his suggestion, but for his generosity in supplying the needed financial guarantee.

THE STUDENT BODY

The Law School registration throughout the past five years has been as follows:

	1934–35	*1935–36*	*1936–37*	*1937–38*	*1938–39*
Third Year	35	55	47	64	57
Second Year	59	53	60	53	56
First Year	85	92	83	71	73
	179	200	190	178	186
Graduate Students	3	3	2	1	0
Total	182	203	192	179	186

During the year, the degree of LL.B. was awarded to 53 students.

THE LAW SCHOOL COMMENCEMENT

It had been anticipated that Mr. Myron C. Taylor would be the speaker at the commencement held on June 1. His sudden illness necessitating an operation only a week before that date, deprived us of the honor of his presence. A recorded appreciation is due Mr. Arthur E. Sutherland, jr., of the Rochester bar, for his graciousness in accepting the invitation to speak and for his conscientiousness in preparing a brilliant address upon such short notice.

During the year, Mr. Taylor had had a portrait of Chief Justice Hughes painted by Mr. Simon Elwes, R.A., and a portrait of Chief Judge Hiscock painted by Mr. Frank O. Salisbury. It had been Mr. Taylor's intention, as a part of the commencement exercises, personally to present these portraits and to have them unveiled by Mrs. Taylor. In their absence, announcement was made of this further generosity of Mr. and Mrs. Taylor, the portraits were unveiled and the gifts accepted by the President on behalf of the University. Chief Justice Hughes was at one time a member of this Faculty. Chief Judge Hiscock, a graduate of the University, has given almost a lifetime of service to it as associate member and as Chairman of its Board of Trustees. The portraits of these two distinguished men, pre-eminent as lawyers and jurists, will be hung in the reading room and will add to the enduring interest and dignity of Myron Taylor Hall.

ACTIVITIES OF THE FACULTY

Three works referred to in the last report as then in preparation by members of the Faculty, have been completed and published during the year: Professor Thompson's collaboration with Professor Williston in the eight-volume revision of Williston and Thompson on Contracts; Professor Robinson's text on Admiralty; and Professor Wilson's second edition of his casebook on Torts. Professor Laube is continuing his preparation of a casebook on Wills. Work upon a new edition of his treatise on "The Law of the American Constitution" has been begun by Professor Burdick. Professor MacDonald has undertaken co-authorship of Materials on Legislation, and Professor Washington is collecting and editing mimeographed materials for use in teaching elementary procedure in this School.

In January, Professor Burdick was re-appointed Chairman of the New York State Law Revision Commission of which Professor MacDonald continues as Executive Secretary and Director of Research. Several members of the Faculty served during the year as research consultants on projects being studied by the Commission: Professor Robinson on usury in respect to the holder in due course of negotiable paper; Professor Farnham on the text and operation of the New York statute relating to the conditional sale of fixtures with a view to drafting legislation calculated to improve the present law; Professor Keeffe on two topics, the investments made by committees of incompetents, and what constitutes a sealed instrument.

Professor Morse was chairman of the American Law School Association's Round Table Committee on Law Libraries, and of the American Association of Law Libraries committee which considered the subject of cooperative purchasing of law books.

There was increased participation by members of the Faculty in the activities of bar associations. As chairman of the American Bar Association's Committee on Noteworthy Changes in Statute Law, I was charged with responsibility for that committee's report. With pleasure and pride, I record the invaluable assistance contributed to this task by Mr. Frederick J. Rarig, of the class of '39.

Professor Wilson was a member of the American Bar Association's sub-committee to propose reforms in the law of evidence, and a member of that Association's New York State committee to promote the adoption of proposed procedural reforms.

In September, I spoke before the annual meeting of the Federation of Bar Associations of the Sixth Judicial District at Elmira on "Business Regulation, an Historical Survey." Before the annual meeting of the New York State Bar Association in New York City and before a meeting of the University of Toledo Law School and members of the Toledo bar, I spoke on different phases of legal education and admission to the bar.

Professor Whiteside addressed the Oneida County Bar Association at Utica and the annual meeting of the Federation of Bar Associations of the Eighth Judicial District at Niagara Falls. Meetings of the Broome County Bar Association at Binghamton and of the Monroe County Bar Association at Rochester were attended respectively by Professor Whiteside and myself and by Professors Whiteside and MacDonald.

News of the Law School was put before the alumni at the Cornell luncheon held in conjunction with the annual meeting of the American Bar Association at Cleveland last July; at the annual meeting of the Alumni Corporation in Chicago; at the annual meeting of the Cornell Law Association at Ithaca; and at alumni gatherings in Buffalo and New York.

This year for the first time, arrangement was made for a gathering in the men's lounge in Myron Taylor Hall of graduates of the Law School returning for alumni week in June.

THE CORNELL LEGAL AID BUREAU

It is gratifying to report the continued cooperation between the Tompkins County Bar Association and the Cornell Legal Aid Bureau, an organization of law students. The number of cases handled was slightly larger than last year, resulting in increased benefit to the students participating, the lawyers assisted by student help, and the clients receiving legal aid.

A LAWYERS' INSTITUTE AT CORNELL

Early in the year, it was suggested to the Tompkins County Bar Association that the Law School would be glad to cooperate in the organization of an institute for practicing lawyers if sufficient interest in such a project were manifested by members of the bar. The suggestion was similarly put before the Tioga County Bar Association. In April, upon the request of the executive committee of the Federation of Bar Associations of this judicial district, I presented the proposal to that body which gave its enthusiastic support to the plan of an Institute to be sponsored jointly by the Federation and the Law School. As a result of cooperation between a special committee of practicing lawyers and the Law School administration in perfecting the organization and program, a Lawyers' Institute will be held in Myron Taylor Hall, August 17, 18 and 19.

ROBERT S. STEVENS,
Dean of the Law School.

APPENDIX V

REPORT OF THE DEAN OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor of presenting the following report for the Medical College in New York for the academic year ended June 30, 1939.

The past year has been one of considerable constructive, critical thought on the part of all concerned. The Society of the New York Hospital and the University have drawn closer together in mutual appreciation of their common problems and also in the understanding of the problems with which they are separately concerned.

The Society of the New York Hospital proposed that the budget of the Department of Psychiatry be made part of the Joint Budget of the Clinical Departments, and generously offered to give this department its complete financial support "until such time as an equitable proportion between the College and the Society can be agreed upon." This proposal was accepted by the Joint Administrative Board and brings the Department of Psychiatry entirely into line with the other clinical departments from an administrative point of view.

During the year a new Committee on Animal Care was appointed by the Joint Administrative Board and submitted a plan for the solution of the increasingly difficult problem of providing adequate housing and care of animals to be used in research. The plan calls for $230,000 of new money to cover the cost of structural changes contemplated.

A new committee to consider Grants from Commercial Houses, made a thorough study of this matter. Members of the committee attended the Conference on Medical Patents, held in Chicago under the auspices of the American Medical Association. The Committee reported to the Executive Faculty on April 15, outlining policies which were adopted by the College in regard to patents. It clearly defined the method to be followed in the negotiation of grants from commercial houses.

Early in the year the Joint Administrative Board appointed a committee on Personnel Health, which in May submitted a plan for the unification of the Health Services of the Medical Students of Cornell University Medical College, and the Nurses and the Resident Medical Staff of the New York Hospital. This comprehensive report awaits action by the Joint Administrative Board and it is hoped that that Board will see fit to appoint a permanent committee which will undertake the gradual realization of the plan.

During the year the Executive Faculty considered at length the matter of academic titles, and officially adopted a schedule of such titles, which brings the Medical College into accord with the other colleges of the University in the matter of awarding academic titles.

The Governors of the New York Hospital, the Medical Board of the New York Hospital, and the Joint Administrative Board, considered the matter of "full-time fees." A Special Fund for Research was set up in the Business Office of the Medical College, into which all fees received by members of the full-time staff are placed. The power to allocate monies from this fund lies with the Joint Administrative Board. Monthly reports on the status of the fund are made. The Medical Board is free to make such recommendations for the use of the fund, as it sees fit, to the Joint Administrative Board.

During this season both institutions have suffered serious losses in personnel.

Henry G. Barbey, President of the Board of Governors of the Society of the New York Hospital, and Chairman of the Joint Administrative Board, died on July 24, 1938. Mr. Barbey was appointed a member of the Board of Governors of the New York Hospital in 1908. He was elected president of the board in January 1937. He gave unstintingly of his time and energy. His kindly and sympathetic personality and quiet, firm leadership won us all.

Pol N. Coryllos, Professor of Clinical Surgery, died on July 26, 1938. Dr. Coryllos was born in Patras, Greece, and educated in Greece and France. He served for a period as surgeon general of the Greek Army. In 1923 he came to America and joined the staff of the Cornell University Medical College. Dr. Coryllos was especially interested in thoracic surgery and did a great amount of research in this field.

Abram T. Kerr, Secretary of the Medical College at Ithaca and Professor of Anatomy, died on August 15, 1938. Although removed from the medical college in New York, Dr. Kerr frequently visited us and as long as health permitted, attended our faculty meetings. He took great pride in the preclinical training of the students at Ithaca. Long a faithful and loyal servant of the University, keenly aware of implications of the growing and expanding school in New York, but ever alive to the advantages to the student and faculty of working on the campus of the University, he saw with regret and yet with understanding the removal of all of the preclinical training to New York.

William C. Thro, Associate Professor of Medicine (Clinical Pathology), died on April 6, 1939. Dr. Thro first became associated with the Medical College in 1901 as Instructor in Histology and Embryology. He became Associate Professor of Medicine (Clinical Pathology) in 1932, which position he held until 1937 when he was forced to retire on account of ill health. Dr. Thro is remembered by generations of our graduates for his personal touch in their training in medicine, particularly clinical pathology.

James Clifton Edgar, Emeritus Professor of Obstetrics, died on April 7, 1939. Dr. Edgar was professor of obstetrics from 1900 to 1922. "A delightfully informal but impressive teacher who was respected and revered by his students."

Charles Rupert Stockard, Professor of Anatomy, President of the Board of Scientific Directors of the Rockefeller Institute and member of the National Academy of Sciences, died on April 7, 1939. Dr. Stockard joined the staff of the Medical College as an assistant in embryology and histology in 1906, and was made Professor of Anatomy in 1911. Dr. Stockard was always active in the affairs of the Medical College. He was helpful to the Dean by his counsel and advice.

Jeremiah S. Ferguson, Secretary of the Faculty, died on June 30, 1939. Dr. Ferguson joined the staff of the Medical College as an instructor in histology in 1898. In addition to his teaching duties he devoted much time to student affairs. For many years he was chairman of the Admissions Committee. For over forty years he missed but one or two faculty meetings, and then only when upon leave of absence or absent on account of official duties.

So pass from our midst men who have given their lives in loyalty and patient endeavor to build up our institution of medical teaching, leaving the challenge to maintain the high standard of performance which they have set.

CHANGES IN STAFF

Dr. Joseph C. Hinsey resigned the Professorship of Physiology on July 1, 1939 to accept the Professorship of Anatomy, made vacant by the recent death of Charles Rupert Stockard.

Dr. Eugene L. Opie, Professor of Pathology, was granted a leave of absence for six months to go to Peiping Union Medical College in Peiping as Visiting Professor of Pathology. Dr. Opie will return to the Medical College to resume his regular duties on October 1, 1939.

Dr. Robert A. Moore resigns the Associate Professorship of Pathology as of October 1 to accept the Professorship of Pathology at Washington University, St. Louis.

Dr. Vernon W. Lippard resigned as Associate in Pediatrics, July 1, 1939 to accept the position of Assistant Dean of the College of Physicians and Surgeons, Columbia University.

Dr. James Henry Spencer, Assistant Professor of Clinical Medicine, resigned March 31, 1939, in order to devote more time to his private practice.

Dr. Norman Cameron assumed the duties of Associate Professor of Psychology on October 1, 1938. Dr. Cameron comes to us from Johns Hopkins and is a valuable asset to our teaching staff.

Dr. Dean Burk, Associate Professor of Biochemistry, assumed his duties in the department July 1, 1939. Dr. Burk has had a wide and valuable experience in the field of research both here and abroad.

Dr. George M. Hass will begin his duties as Assistant Professor of Pathology on July 1, 1939. Dr. Hass comes to us from Harvard Medical College where he has held the post of Instructor in Pathology since 1932.

Promotions to the rank of Associate Professor include the following: Ralph W. Bowers, Associate Professor of Clinical Surgery; William H. Chambers, Associate Professor of Physiology; Cary Eggleston, Associate Professor of Clinical Medicine; Richard W. Jackson, Associate Professor of Biochemistry; Howard S. Jeck, Associate Professor of Clinical Surgery (Urology); John H. Richards, Associate Professor of Clinical Medicine.

STUDENT BODY

This year, for the first time in the history of the Medical College, all first year students of medicine have received their training at the Medical College in New York. Although the Ithaca Division of the Medical College has been continued, only those students from other departments of the University there who wished to avail themselves of the opportunity for training in medical subjects were enrolled in the Medical College at Ithaca. Thus the number of students in our first year class in New York this past year will show an increase of from 20 to 25 over the enrollment reported in former years.

For your information, I quote from the report of Assistant Dean Edwards the following facts:

"For the academic year 1938–39, two hundred and eighty-six students enrolled in the Medical College. Fourth year, 63, fifty-eight men and five women; Third year, 73, sixty-five men and eight women; Second year, 70, sixty-four men and six women; First year, 80, seventy-four men and six women.

"During the year three students withdrew and one was lost through death. On June 7, sixty-three candidates received the degree of Doctor of Medicine.

"At the end of the academic year just passed, fourteen students were dropped because of poor scholarship.

"For the academic year 1938–39, seven students registered in the Graduate School; six are working for the Ph.D. degree and one for a M.S. degree."

Pursuant to our agreement with the University of Havana, we have had the privilege of having with us for advanced study for periods of two months each, the following members of the Faculty of the Havana Medical School: Dr. Pedro Leon Blanco, in Embryology with Dr. Nonidez; Dr. José Lastra, in Surgery with Dr. Andrus, and Dr. Rafael Inclan, in Medicine with Dr. Du Bois.

The Departments of Neurology, Pediatrics, and Medicine each offered facilities for advanced graduate work to one guest student who was in residence most of the year. In addition to this, there were three special students registered, two in Anatomy and one in Pathology.

Eighty-three students have been accepted for admission in the first year class entering in September 1939. Seventy-seven men and six women. Four students have been accepted for advanced standing.

STUDENT PERFORMANCE

Sixty-six Cornell students took the State Board Examinations in 14 different states for the calendar year 1938. Of this number sixty-four passed in all subjects, giving a score of 3% failures. The two candidates who failed the New York State Board examinations were members of the classes of 1930 and 1931.

INTERNSHIPS

In the matter of internships, I am happy to report that the survey of the internship performance attained by the class of 1939 indicates that in competition with other medical colleges, Cornell graduates turned in a most satisfactory record.

CURRICULUM CHANGES

During the year the curriculum committee re-studied the teaching in the clinical departments. On the recommendation of the committee, the Executive Faculty authorized for the Third Year Schedule a shift from the trimester system to a modification of the quarter period which was in effect in 1934–35. This change has been made in an effort to obtain greater continuity for the clinical clerks in their studies of ward cases.

Early in the year, the Dean submitted to the Executive Faculty an outline of a plan for teaching in the clinical years, which provided that each calendar year be divided into four quarters, with two weeks vacation between quarters. The plan was suggested in an effort to provide greater elasticity than the present system permits, and to eliminate the long Summer vacation of each year, during which the majority of our students in their clinical years seek clinical work, either in our departments or those of other schools or hospitals. This system would permit more constant application to clinical work, with greater continuity during the clinical years and would provide more time under less pressure for the study of the specialties.

Although no formal action was taken, it was the sense of the Executive Faculty that the change proposed was not desirable. However, the Dean hopes that this scheme may be reconsidered in the not too distant future. There seem to be obvious advantages in it to both students and faculty. It would in no way interfere with faculty vacations, in fact, would permit greater freedom for the faculty in this matter. Such a scheme is quite feasible inasmuch as the clinical services of the hospital are adequately covered by competent teaching staff during the entire year.

RESEARCH

Each department has reported the research projects now being pursued and these supplementary reports are available to those interested. Much valuable and constructive investigation is being conducted in all departments.

The following funds for research have been received during the past five years:

1934–35	$ 58,114.44
1935–36	139,078.47
1936–37	110,938.47
1937–38	164,496.18
1938–39	266,580.98

During the year it has been agreed with the New York Hospital that all funds for research will be handled by the Business Office of the Medical College. A separate account is set up for each fund, and a strict accounting is made to the donors, to the head of each department concerned, and to the Joint Administrative Board.

RELATIONS WITH OTHER INSTITUTIONS

In June, the Memorial Hospital moved from its old site into the new building at 444 East 68th Street. We are happy indeed to welcome that institution as a near neighbor. There is every indication that the staffs of the Memorial Hospital, Rockefeller Institute, New York Hospital, and the Medical College will benefit mutually from the close association which is now made possible.

The Medical College nominates the staff of the Second Division of Bellevue Hospital. This division consists of a general surgical service with a special service in urology and a general medical service with a special service in neurology. These services are a necessary adjunct to the teaching facilities of the Medical College. They provide a different type of clinical material for training of the students in the care of the sick and for study and investigation from that prevailing in the large private hospitals of the city. When the Medical College was located directly across the street from Bellevue, the bulk of the teaching of our students and much of our investigation was conducted there. At that time a considerable amount of financial support was devoted to those services. With the removal of the Medical School to its present location, as a part of the physical plant of the New York Hospital, and because of the scarcity of funds caused by the depression,

the college has been unable to adequately support its Bellevue Services. At present the Department of Medicine allocates somewhat over $10,000 to the support of its Bellevue Service and the Department of Surgery, about $5000. There is urgent need for additional funds for these services.

PHYSICAL PLANT

During the year the Council granted an increase for maintenance and repair of the Medical College building and we are now repainting and renovating the interior of the buildings. In addition to these matters of general repair and upkeep, we have been able to undertake some changes in the animal quarters which are in accord with the plan outlined by the Committee on Animal Care.

It is gratifying to report that the name of the Medical College has been carved on the center building above the entrance to the Medical College.

FINANCES

Again the Medical College finds itself in dire need of more income from General Endowment. There has been some decrease in the income from General Endowment which has not been offset by the increase in tuition fees put into effect beginning with the academic year 1939–40.

WILLIAM S. LADD,
Dean of the Medical College.

APPENDIX VI

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to report herewith on the work of the New York State Veterinary College for the year 1938-39.

THE FACULTY

I regret to record the death, on March 1, 1939, of Henry Asmus, Assistant Professor of Farriery. Professor Asmus, in a unique field, gave many years of faithful and useful service to the University. His loss is the only significant change in the faculty during the year.

The teaching load of the faculty continues to be heavy—too heavy in many instances. Nothing can be done to relieve this situation until such time as additions to the personnel can be made. The clinical staff in particular is loaded with so much routine work, so many patients that must be treated, that its members have little time for reading and reflection during working hours.

Professors H. L. Gilman and W. A. Hagan have been on sabbatic leave during the second term of this year.

STUDENTS

During the last five years the number of students allowed to matriculate each year has been limited to forty. This automatically limits the size of the student body to about 160. During the past year the number was 161. Transfer students are accepted from other veterinary schools when vacancies are created in any of the classes because of the dropping of students, therefore it is quite likely that the registration henceforth will remain quite constant from year to year.

The number of applicants for admission continues to remain at about the level it has held for the last several years. There were 272 completed applications on file for admission last fall.

Graduate teaching has gradually increased during recent years, but the number of such students is not as great as we could well accommodate. There are very

few assistantships in our faculty, our teaching being done largely by men of professorial rank. The lack of assistantships makes it impossible to offer financial aid to many promising young men who are eager to obtain graduate training but who find it necessary to support themselves by part-time work. Eleven students took their major work in the Veterinary College during the past year, five being candidates for the Ph.D. degree, and six for the M.S. degree. Twenty-seven students were registered for minors. Many others took supporting work in our classes but were not registered in this College.

From time to time during the year, veterinary practitioners come to the college for special instruction. These persons remain for periods varying from a day or two, to several weeks. They are welcomed and given every opportunity to acquire the special knowledge which they are seeking.

A short course which has proved very popular is the Annual Conference for Veterinarians. The Conference of last January was unusually successful. More than 300 licensed veterinarians, the greater part of them being alumni of this college, were in attendance for the two-day session. At the request of those in attendance, the meeting next year will be extended to three days.

THE CURRICULUM

The veterinary curriculum is a fixed one, that is, all courses are prescribed and students seldom can find time to take courses of cultural or scientific value in which they have a special interest, or which they feel they ought to have. All students are crowded into the same mold and told that specialization of any kind must come after they have completed the basic four-year curriculum. This may appear arbitrary but it is necessitated by the crowding of more than four years' work into a four-year course.

Two of the veterinary colleges of this country already have announced their intention of requiring two years of college work, instead of the present standard of one year, for admission, beginning in 1940, and it is probable that others will soon follow. Veterinarians need more training in subjects of general cultural value, and in such related fields as animal husbandry, genetics, physics, and botany, than most of them are now getting. Whether we should proceed in the direction of a five-year curriculum based upon the present entrance standards of one year of college work, or adopt two years of college work for admission, as some already have done, is a question to which we do not, as yet, have an answer. It is quite likely that the coming year will see some recommendations on the matter from the faculty.

LABORATORY AND CLINICAL SERVICES

Several diagnostic laboratories are maintained by the college as services to practicing veterinarians and livestock owners. The work of these laboratories continues gradually to grow. Although the final figures are not yet in at the time this report is written, it is quite certain that the number of accessions will increase by at least five per cent over last year, which was the largest year, in turn, that they had had.

The clinics are of great importance to our teaching and the larger and more varied they are, the better. For some years our personnel and facilities have been pushed to the limit to handle the cases that have come to us. This year has been no exception. In the surgical clinic for large animals, we have hospital facilities for 33 animals. Most of the year the number of cases has run from 40 to 55 daily, a situation which occasions rather dangerous crowding. The number of surgical cases in the small animal clinic has become so great that practically all work, except for emergencies, is done by appointment only and patients sometimes are booked as much as four weeks in advance. It is a fine thing to have so much clinical material available, but the load on the staff is great, and much better study of cases could be given if there were more persons available for the routine duties.

A motor ambulance was acquired this year to replace the old horse-drawn vehicle which has served the purpose for so many years. The new equipment makes it possible to bring patients from considerable distances to our hospital for special treatment, or as especially interesting cases which we wish our students to study.

PLACEMENT SERVICE

Graduates of the College never have had serious difficulty in obtaining employment. Last year four-fifths of the class had definite positions before the first of July. It is significant, I think, that very few graduates now enter private practice immediately. Apparently they are aware of the fact that practical experience with older and established practitioners is a final experience needed to convert them into practical and efficient servants of the livestock industry. This experience is similar to that which medical students receive during their period of internship.

EXTENSION SERVICE

One of the principal problems of livestock owners is to keep their herds and flocks free of disease, or at least to maintain them in such a way that disease losses are minimized. Success in this depends largely upon the information which the owner has, or can obtain, on the nature of the more common diseases and of the way in which they are spread. The training of professional veterinarians is the principal work of this College, but this is only a means to an end, since the final purpose of the institution is to aid in controlling disease losses. Besides the training of professional men, the College can do a great deal in the solution of the problem by disseminating information on animal hygiene and disease prevention to the animal owners. The charter of the College defines this service as one of its duties, but in the past little has been done, for the reason that no special staff for the purpose has been provided, and the regular teaching staff has little time to devote to the purpose. In the field of poultry diseases, special appropriations have made this work available and a great deal has been done during the last few years. Such work ought also to be done, on a much greater scale than ever has been done, in the field of swine, sheep, and cattle diseases. For a number of years efforts have been made to obtain financial support to enable the college to make a beginning in this field, but these have been fruitless. The efforts will be continued.

RESEARCH

During the past year the amount of research work accomplished has been reduced somewhat because of the disruption of the work of three of the departments occasioned by moving into new quarters, and by remodelling of other quarters to adapt them to their new uses. These readjustments have been made, and the facilities for effective work are now much improved. Reference to these improvements will be made later in this report.

Space here will not permit of a detailed report of the research work which is under way. In general it may be said that the most important studies are long-time projects, and I believe that progress has been made on all of them. Within the larger projects are minor ones, some of which have been completed during the year and published in the regular veterinary, medical, and scientific journals. A more detailed report of the individual projects will be given in the Report to the Legislature which will be made later in the year. Copies will be sent to any who request it.

In the three clinical departments very little research of the formal project type is conducted, principally because these departments are quite fully occupied in handling the very large number of cases that they are called upon to treat. New drugs, new surgical operations, and new methods of treatment are constantly being tried. It is in this way that these departments are contributing to new knowledge. In the Department of Medicine, however, a formal project on the nature and control of bovine mastitis is being prosecuted.

In the other departments, research is conducted on a project basis. In the Experiment Station the projects deal with many aspects of Bang's disease and other diseases which interfere with reproduction in cattle, and with parasites and parasitic diseases. In the Department of Physiology the researches have to do with the chemistry and mechanics of ruminant digestion, electrocardiography, and with the chemistry of several metabolic diseases. In the Department of Pathology and Bacteriology, the main projects are concerned with the etiology of tumors, with parasites of poultry, with encephalitis in carnivorous animals,

and with Johne's disease or paratuberculosis of cattle. In the Department of Anatomy new dissection guides on the horse and the dog are in course of preparation.

PHYSICAL FACILITIES

Facilities for both teaching and research have been greatly improved during the year. The Veranus A. Moore Laboratory of Pathology was completed early in the teaching year and was put to use immediately, although all of the equipment was not in place. The original appropriation for equipment was only about one-half of the sum requested, and parts of the building had to be left vacant during the present year. The Legislature of 1939, however, has remedied the matter with a second appropriation which will suffice for complete outfitting according to our original plans. The building has met our expectations in every way. The facilities for refrigerating fresh tissues, for conducting autopsies in well appointed and sanitary quarters, for the housing of adequate numbers of experimental animals where they may be kept humanely and under close observation, and the private research laboratories where staff members and graduate students may work without interruption, are a joy to those of us who have worked for years in crowded, insanitary, and inadequate laboratories and with inadequate and obsolete equipment.

The third floor of James Law Hall has been remodelled to provide much larger and better quarters for the Department of Physiology. The funds available were not large enough to make all of the desired changes and the repairs that ought to have been made, but the new quarters are workable and will suffice until such time, not too far in the future we hope, when it will be possible to rebuild the front portion of the building. Space on the second floor of this building, formerly occupied by the Department of Physiology, has been made over into offices and laboratories for the Experiment Station.

With the aid of a W. P. A. grant of about $9,000 and a State appropriation of about $5,000, the grounds of the College are now being improved. Several small wooden buildings have been torn down, the grounds are being graded and seeded, and roads and walks are being built. This work ought to be completed before the end of the summer.

NEEDS OF THE COLLEGE

All parts of the College now are reasonably well housed with the exception of the Department of Physiology, which has larger and better laboratories than it has previously enjoyed, but still lacks suitable animal quarters, and other facilities which the old building does not provide. The most pressing needs now are concerned with personnel and with adequate maintenance funds. In the order of their immediate importance, I should like to list these needs.

(a) A moderate increase in the annual allowance for general maintenance.
The maintenance appropriations have gradually been whittled away during the last few years by outright reductions in allocations and enforced savings so that the institution is now operating largely on its income from clinics and diagnostic laboratories, and this is too small to protect the property from deterioration and to furnish reasonable maintenance for the institution's normal activities.

(b) Provision for several new positions.
1. A professorship in extension service.
2. An assistant professorship in pathology.
3. An assistant professorship in physiology.
4. At least three assistantships (internships) in the clinical departments.

(c) An X-ray outfit sufficiently large and powerful for use on large animals.

(d) Additional stacks for the College (Flower) library.

In conclusion, Mr. President, may I thank you and the other officers of the University for the solicitude and helpful attitude always exhibited toward the solutions of the problems of this College. I have said previously, and I am glad to repeat, that the State of New York is fortunate that the administration of this

College is under the administrative care, and intimately associated with, a great University such as Cornell. I wish that all of the State's administrative officers could be brought to a fuller realization of these advantages.

W. A. HAGAN,
Dean of the New York State Veterinary College.

APPENDIX VII

REPORT OF THE NEW YORK STATE COLLEGE OF AGRICULTURE AND OF THE CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit the report of the New York State College of Agriculture and of the Cornell University Agricultural Experiment Station for the fiscal year 1938–39.

RESEARCH

The research program of the Agricultural Experiment Station is designed to answer the many and perplexing problems confronting the farmers of the State. Upon the completion of any given project, the research worker turns to a new problem which may have been brought to his attention by groups of farmers, county agents, or the extension service, or through personal observation. Owing to the intense interest of these various groups, our research program is kept tuned to the changing needs of agriculture and stagnation is thus avoided. During the past year, the staff of the Experiment Station conducted active research on 443 different research projects, each of which related definitely to some important agricultural problem.

A few of the more recent and significant contributions of the Station are the following:

Work has been in progress for several years on the relation of nutrition to the productive life of farm animals, to the onset of senility, and to longevity. The results of these studies are challenging the concept of a fixed life span at least as known today. They are challenging also the view that the most rapid increase in weight and size causes the optimum development for a long life. In studying the nutritional requirements of adults during the latter half of life, one outstanding result has appeared: rats that are kept underweight either by low-calorie diets or by daily exercise outlived those that become fat either from lack of exercise or from excessive food. Other experiments are now in progress on the optimum nutrition at different stages of life from the standpoint of longest life span and particularly of the development and maintenance of a body characterized by maximum productive capacity and long-continued physical well-being. These fundamental investigations are bound to have a profound influence upon the productive life of farm animals, and some day, possibly, upon the human race as well.

Recognizing the benefits to be derived from electricity on the farm, the Experiment Station has devoted considerable attention to the application of this source of power to farming operations and the farm home. Attention has been given to the design and development of milk coolers, sterilizing equipment, fences, and brooders, all powered or energized by electricity. Under certain conditions, it has been practical to sterilize soil by electricity. In a recent survey of 677 electrified farms in New York State, 48 different farm uses and 28 different household uses of electricity have been found. The most important farm uses included electric milk coolers, milking machines, clippers, the use of electricity for poultry lights, for pumping water, and for belt-power which runs machines that vary in size

from a small egg-buffer to a large silo-filler. About 90 per cent of all homes on the electrified farms had electric flat-irons and electric radios. Only a fifth of the farms had electric refrigerators. On the Grade A dairy farms surveyed, one-half of the farms had electric milk coolers and electric clippers, and a third had electric milking machines. The operators of these farms estimated that the electric service from central stations had increased the value of their farms about 17 per cent, or an average of $1100 a farm.

From time to time the farmers of the State are faced with an emergency as a result of the importation of some new disease or insect pest. Such has been the case with the alfalfa snout beetle. This pest has threatened the alfalfa industry of the State for several years. Recent experiments have shown that a raisin-shorts, sodium-fluosilicate bait will give a high percentage of kill. In order to obtain the maximum kill, infested fields should be plowed before the time of baiting and planted to cultivated crops such as corn or cabbage for two successive years. This procedure allows the beetles to emerge on plowed ground where they are easily killed with the poison bait. After a field is free from infestation it can be returned to alfalfa or clover. While it is not probable that the beetle can be completely exterminated, the results to date indicate that sufficient control can be obtained to permit of normal alfalfa production.

A new method of cooling milk by means of a vacuum should prove of great value in the handling of market milk. The method involves the removal of oxygen by forming a vacuum above the milk so that the milk "boils". This process draws off the water vapor which sweeps out the dissolved oxygen with it and cools the milk about 18 degrees. The vacuum method can be applied as a part of the cooling necessary after pasteurization. Following vacuum cooling, the milk may be bottled and capped in ordinary milk bottles. No special precautions are needed to prevent re-absorption of oxygen. Vacuum-cooled milk has been stored for seven days without developing an oxidized flavor, whereas surface-cooled milk had a strong "off" flavor in three days. In addition to its effect on "off" flavors, the new method preserves practically all of the vitamin C in the milk. In ordinary market milk the vitamin C is destroyed by oxygen. This destruction occurs with great rapidity if the milk has come in contact with metallic copper or has been exposed to light.

One of the most important agricultural needs in the State is a forage crop which will grow satisfactorily on acid soils not adapted to the production of alfalfa. Bird's-foot trefoil (*Lotus corniculatus*) may prove to be the answer to this problem. This hardy legume has been growing wild in meadows in several counties around Albany for several years. When used as a hay crop, bird's-foot trefoil has a feeding value close to that of alfalfa. As a dual-purpose crop it furnished last summer three times as much pasture during a dry period as did wild white clover.

Toward the end of the growing period and particularly in dry summers a disease called "cracked stem" has developed in certain celery fields with consequent serious losses to the growers. Until recently, the cause of this disease has been obscure. Experiments conducted under greenhouse and field conditions have shown that "cracked stem" is due to a deficiency of boron, and that when this element is supplied even in very small amounts, one-half part per million, the trouble disappears in less than a month. Ordinary borax applied either with a fertilizer or a fungicide or in solution by itself at the rate of 15 to 25 pounds per acre will give complete control of the disease at a cost of less than $1.25 an acre for the material. Two applications of borax, a year apart, are thought to be sufficient to control the disease for several years.

A contribution of great significance to the vegetable industry is the release of a new strain of "Iceberg" lettuce called Imperial 44. Fifteen to twenty years ago, the farmers of the State had a virtual monopoly on the lettuce market during the summer months. Shortly after 1920, California began to grow the "Iceberg" type of lettuce which met with great consumer demand and at the same time could stand the handling and icing needed for proper packing and the long trip across country in refrigerator cars. New York growers tried to meet the western competition by growing lettuce of the "Iceberg" type. Unfortunately, however, high summer temperatures interfered with successful production. Recently, a new

strain, Imperial 44, has been released to the growers. This strain can be grown successfully under New York State conditions to the great advantage of those farmers who are interested in this crop.

More detailed information on other important phases of the research program of the Experiment Station is contained in the Annual Reports of the State Colleges of Agriculture and Home Economics to the Governor and the Legislature.

EXTENSION TEACHING

Twenty-five years ago adult education for rural folk received a great impetus through passage of the federal Smith-Lever Act. In New York and a number of other States, extension work had been developing slowly for many years. Accumulated findings of the experiment stations (many of them established in 1887) and other scientific data applicable to crop and livestock production and farm management, had been trickling out to farmers through several channels: farmers' institutes, extension schools, county-fair exhibits, agricultural trains, scattered demonstrations of many kinds and under various sponsorships. Farming was rapidly becoming commercialized, and urban influence was coloring rural philosophy and changing rural standards.

During this quarter of a century, profound economic and technological, social, and political changes have taken place. Having for its general aim to develop and maintain on our farms a culture in harmony with the best American ideals, it has been the job of the extension service to interpret to rural people the significance of these fundamental trends and help them to make necessary adjustments. In New York the methods employed have been strictly educational in character. We have tried to present the facts clearly and impartially. Decisions on what adjustments to make, and how fast to make them, have been left to farm people themselves. This also means by implication that farm people have in large measure guided the direction of the educational programs presented to them.

Results of this educational program are measurable in the same terms as any other educational endeavor. The chief accomplishment of the past twenty-five years has been locating and developing rural leadership in stretching the vision of thousands of farm families, opening their eyes to the value of scientific facts and to the significance of economic and social trends. Such important groups as the G.L.F. Exchange, the Dairymen's League, and most of the other outstanding organizations serving the commercial interests of agriculture, are heavily manned by persons trained in the extension service. In positions of active local leadership in the smaller communities and neighborhoods are some fifteen or twenty thousand men and women functioning as volunteer leaders broadening the interest and understanding of those further removed from the influence of the paid personnel.

The extension service has paved the way for progressive improvements by other agencies such as the reforestation and conservation programs, the improvement of rural schools, farm-to-market roads, rural electrification, health facilities, recreation, protection from fire and flood, and a broader, more intelligent interest in all civic affairs. Twenty-five years ago it still was not uncommon to hear disparaging remarks about "book learning," and for the "professor" to be subjected to some rough hazing designed to expose imagined impracticability and unsoundness. Today, a large majority of farm men and women bring their problems to the colleges as a matter of course and with an embarrassing degree of faith in the infallibility of the institution to solve these problems correctly. Attitudes are almost completely reversed.

Although the aims and objectives of the extension service have been defined in broad terms, it is probably true that in the field of agriculture the practical aims have been preponderantly toward economic proficiency. What has been accomplished in a quarter of a century?

A formidable list of changes and improvements that have occurred could easily be prepared. But many forces and influences have contributed to these changes. It would be unseemly for the extension service to claim all the credit, or even, perhaps, the major portion. However, by way of illustration, a few changes and adjustments made by thousands of New York farmers, in line with recommendations and teaching programs of the extension service, may be cited.

The time-honored job of making hay is just now being partially revolutionized by earlier cutting, revised procedures of curing, and new methods of storing and preserving.

Methods of cultivating certain vegetables, and the reasons for them, have been changed, resulting in important savings of labor.

Production per animal unit has been steadily raised by improved methods of feeding and of housing, and especially by breeding.

Farm credit has been placed on a very much better basis.

The mortality of farmer cooperative organizations has been greatly reduced.

The continuous battle against plant diseases and insect pests has been placed on a very high plane of efficiency and widespread use of modern scientific methods.

Spectacular has been the rapid, continuous evolution of improved strains and varieties of many crops, especially such grains as corn, wheat, oats, and barley, and such vegetable crops as beans, peas, tomatoes, and lettuce.

In certain areas of the State, the entire farm management plan has been changed, as in Seneca County, where loss of markets for grain and hay formerly produced for sale made necessary a new type of farming. The answer there seemed to be dairying. In many areas, the size of the average farm business has been increased, or better diversification introduced.

Ten years ago, New York had under way a movement that quite recently has become a major project of the Federal Government. That is to classify the land of the State on the basis of the use to which it is best adapted. Application of the results of this classification to a long-term agricultural program forms the background of present and near-future plans. This inevitably means a broadening and deepening of programs. It also involves an important responsibility to harmonize, interpret, and correlate the near and long-term objectives and activities of many governmental agencies now concerning themselves with rural welfare. The extension service faces a bigger and more challenging job than ever before.

APPROPRIATIONS

The appropriations made by the Legislature for the fiscal year beginning on July 1, 1938, were substantially the same as in 1937–38 in the fields of teaching and extension. Additional funds were appropriated to meet deficiencies in farm and home bureaus and junior extension, accessory instruction, workmen's compensation, and heat, light, power, and water. A few salary increases were allowed, with the amounts limited to the increments in the State Career Bill. In making these increases, emphasis was given to the lower-salaried groups.

The sum of $45,000 was appropriated to replace the horse barn which was destroyed by fire on the afternoon of January 21, 1938. The Legislature appropriated an additional sum of $4,615 to cover the feed and equipment destroyed by the fire.

New appropriations for research were: $10,000 for fruit-marketing investigations; and $10,000 for livestock-marketing investigations.

An appropriation of $5,000 provided for the installation of an irrigation system at the Long Island Vegetable Research Farm.

With reference to the federal appropriations, the fourth and last increment for teaching under the Bankhead-Jones Act was received. One-half of the increment allowed by the Act was appropriated for research. The full increment for extension was received, but the supplementary Lever and additional Federal Cooperative Funds were decreased in approximately the same amount. Other federal appropriations were practically the same as in past years.

BUILDINGS

The urgent need for a new library and classroom building and a building to provide more adequate housing for the Department of Agricultural Engineering has been pointed out in the Reports for the past several years. Both of these buildings are necessary for completion of the physical plant of the College. With the need for additional classroom and laboratory space becoming more acute each year, and with the valuable library of the College of Agriculture still housed in a

"fire-trap," it is highly desirable that the State make provision for these buildings at the earliest possible moment.

THE COLLEGE STAFF

The usual number of changes occurred in the staff during the year, with no great change in the total number included in the faculty membership. Subsequently to July 1, 1938, 11 instructors were advanced to the rank of assistant professor. The introduction of the rank of associate professor in the University led to the advancement of eleven assistant professors to that grade.

Dr. John P. Hertel was transferred to the Office of Resident Instruction as Secretary of the College with the title of Assistant Professor in Personnel Administration. Dr. Ardon B. Lewis of the Farm Credit Administration of Washington held temporary appointment during the second term to give work in land economics. Assistant Professor Charles M. Bice of the University of Hawaii has been given appointment for the year 1939–40 in exchange with Extension Assistant Professor L. E. Weaver of the Department of Poultry Husbandry.

G. F. MacLeod, Professor of Economic Entomology, K. L. Turk and L. W. Lamb, Extension Assistant Professors of Animal Husbandry, and E. F. Hopkins, Assistant Professor of Botany, have resigned to enter service elsewhere.

Professor Edward A. White retired from active service on June 30, 1939, and was elected Professor Emeritus by the Board of Trustees. He has served with distinction as head of the Department of Floriculture from its foundation in 1913.

Death removed from the Faculty, Emeritus Professors George Walter Cavanaugh and Thomas Lyttleton Lyon, and Professors James Ernest Boyle, George Charles Embody, and Frank Latta Fairbanks, each of whom has made a noteworthy contribution in his own field and in the common life of the University.

THE STUDENT BODY

The number of students enrolled in the various courses during 1937–38 and 1938–39 is shown in the following table:

	1937–38	*1938–39*	
Four-years students:			
Freshmen	409	416	
Sophomores	300	329	
Juniors	259	308	
Seniors	268	267	
Total	1236		1320
Special students	43		33
Two-years students:			
General farming	34	65	
Dairy farming	77	75	
Other livestock farming	22	13	
Poultry farming	21	18	
Fruit growing	17	18	
Vegetable growing	11	9	
Marketing of fruits and vegetables	10	11	
Marketing of dairy products	23	26	
Commercial floriculture	19	17	
Nursery landscape service	—	9	
Total	234		261
Winter-course students:			
Agriculture (general)	36	53	
Dairy industry	22	36	
Poultry husbandry	13	17	
Flower growing	18	11	

Fruit growing	6	5	
Vegetable crops	1	4	
Total		96	126
Graduate students		468	510
Summer-session students		878	929
Total		2955	3179
Less number counted twice		94	124
		2861	3055

Following the period of the world war the low point in the total number of students passing through the College was reached in 1925–26 when the number was 1612. The lowest number of four-year students, candidates for the B.S. degree, was 652 in 1928–29. The increase since those years has been constant in spite of greatly increased rigor in the process of admission, the total for the past year being 3055 and of candidates for the first degree 1320. Thus the number of four-year students has doubled and the total number of all types of students has nearly doubled within the past ten years.

That the quality of instruction has suffered because of this rapid increase in the amount cannot be doubted. During the past year more than twenty classes were closed to students because of lack of staff or, fully as often, of laboratory space, and these classes were for the most part in basic introductory courses which the student should have early in his course. In the two terms of the year, but not including the winter courses or the summer session, there were thirty-five classes enrolling from 50 to 75 students, twenty-one from 76 to 100, nineteen from 101 to 150, four from 151 to 200, and twelve over 200. The largest class is in the introductory course in botany, enrolling 490 in the first and 445 in the second term.

The acuteness of the situation is evidenced by the fact that students in the two-year courses are now not able to get some of the work prescribed or recommended in their curricula and still other courses have had to be organized for them without essential laboratory work.

THE ADMISSIONS PROBLEM

The overcrowded state of the College has made the problem of the admission and the selection of students increasingly difficult in recent years, until now either the facilities must be increased or the number of students must be decreased; and these are under present circumstances hard alternatives to face.

There are aspects of the admissions problem that are somewhat peculiar to the College of Agriculture. For many colleges the question is largely one of selecting applicants of the greatest scholastic promise as this is indicated by the previous scholastic record or by the results of special scholastic aptitude tests. Such a basis of selection is fairly reliable and has the added advantage of being somewhat objective. Were the College of Agriculture to restrict itself to the use of that criterion it would largely cease to serve the constituency for which it was created, for it would then fill its student quota with applicants of marked scholastic promise, interested chiefly in the basic sciences and other general courses available in the College but less concerned with the more distinctively agricultural objectives of the college instruction and largely lacking the background of experience which is desirable for these latter lines of work. Further, the records show that students coming from life on the farm and desiring preparation for some type of work in agriculture do better than do city boys in the work of the College, they persist through the course in greater proportions, and they are far more easily placed in positions when they are through. Obviously the College is justified in taking background, experience, and purpose into consideration in selecting its students. But these criteria are hard to establish and their evaluation is often hard to defend because they are not as apparently objective as the high school record, or rank in the high-school class, or rank in a scholastic aptitude test.

The Faculty of the College, after considering the difficulties in the situation, approved, for the guidance of those administering the details of admission, certain general statements of policy. It was agreed that applicants who expect to work chiefly in the basic sciences are to be accepted only if they rank in the upper two-fifths of the high-school class and if they have shown ability in such scientific subjects as they have studied in the high school. Applicants who plan to work in areas more clearly agricultural are to be held to show evidence of appropriate experience unless the previous school record is of a very high order, virtually no applicants below the third fifth to be considered. It was further agreed that admissions must be the more drastically limited in proportion as the field chosen for specialization is one in which placement upon graduation is difficult or in which the mortality before graduation is known to be high. The result to be aimed at is that students of the very highest rank may undertake to work anywhere in the College and that these high standards may be relaxed only for those who plan to work in areas in which they have a compensating background of experience. It is anticipated that for the coming year, as for the year previous, this policy will result in the enrollment of rather more than four hundred new students in the four-year course.

CHANGES IN THE REQUIREMENTS FOR GRADUATION

Throughout its history the College of Agriculture has stated its requirements for graduation in rather broad terms. This has been partly a matter of conviction as to good educational policy and partly a matter of practical necessity because of the very great number of ends that a college of agriculture can serve. The course, besides serving to some extent the purposes of general education, is planned as preparation for literally scores of vocations strictly agricultural or closely related to agriculture. Through the work of advisory officers there have developed within the framework of general requirements a great many well-defined programs for different groups of students, but the Faculty has in the past resisted efforts to legislate these as fixed curricula.

The only change introduced this year is an increase in the amount of work that must be included in social studies, but the introductory course in economics is no longer a specific requirement in this field. The distribution now provided is 24 hours in English, hygiene, orientation, and certain closely specified courses in the physical and biological sciences, 24 additional hours in basic sciences and social studies (a minimum of 9 in each of these groups), a mimimum of 54 hours in courses in the College of Agriculture, and a remainder of 20 hours elected anywhere in the University.

CARL E. LADD,
Dean of the New York State College of Agriculture
and Director of the Experiment Stations.

APPENDIX VIII

REPORT OF THE NEW YORK STATE AGRICULTURAL EXPERIMENT STATION AT GENEVA

To the President of the University:

SIR: I have the honor to submit the annual report of the New York State Agricultural Experiment Station at Geneva for the year 1938–39.

The progress of the Station's undertakings has been encouraging and the program of efforts taken as a whole reflects conscientious work and effective conduct of research. There is an inseparable connection between research and scientific agricultural methods, and it logically follows that a well-rounded research program is an essential adjunct to progressive agriculture.

It is the function of the Station to aid farmers in meeting obstacles and problems in the practices of their pursuits, and this it endeavors to do by the testing of theories and applications and by investigations aimed at the discovery of new

facts. The contributions from different efforts have done much to protect and foster the agriculture of this State. Several developments from recent undertakings show genuine promise for the future.

Besides making contributions of practical value towards the solution of current pressing problems, this institution is alert to changing conditions and new trends of thought, and, as far as circumstances permit, it attempts to relate its work to them. Of the new undertakings in this direction, mention should be made of the studies relative to utilization of fruits and vegetables, and of the new investigational projects such as the immunity and resistance of fruits to diseases and insects, and new and standardized rootstocks for fruits and ornamentals, the changes in the genetic constitution of plants undergoing treatment with colchicine and other chemicals, pectins and pectic enzymes, starter solutions for certain vegetable transplants, control of plant diseases and insect pests, and improved dairy products.

Of the food-utilization studies, those dealing with the flash pasteurization of apple, cherry, and other juices, and the freezing of fruits, vegetables, meats, and poultry in lockers and farm freezers, are particularly noteworthy. The Station's apple juice process has already been adopted for the large-scale canning of apple juice. The number of cold-storage locker plants in New York State doubled during the past year. The reports of researches on freezing of fruits and vegetables published by the Station have been a major factor in the rapid expansion of this industry in New York State. The work on improvement in the quality of maple syrup and sugar has been of great aid to this important industry.

In the fruit-breeding program, the development of blight-resistant pears has been given special consideration, but generally speaking the field of immunity and resistance to disease and insect attacks on fruits has not been given adequate consideration. A new program has been formulated with the object of breeding fruit varieties that are more resistant to pests.

New experiments with the cultivated blueberry have already shown that this desirable small fruit, which up to the present was thought to have a very narrow range of soil adaptation, can be successfully grown on a much wider range of New York soils; and, furthermore, there is evidence at hand indicating that for the home grower or amateur gardener, this range may be even further extended through special soil modification.

Young plantings of apple trees on the recently introduced Malling rootstocks show considerable promise. These rootstocks represent a refinement in horticulture, in which the rootstocks instead of being of variable and miscellaneous seedling origin are of critically selected and standardized clonal material comparable to a "variety," so that a tree propagated on one of these rootstocks consists of a known variety on known roots. Possibilities of immediate interest are the closer adaptation of trees to differences in soil and climate, greater uniformity, and the development of semi-dwarf trees to facilitate closer planting, earlier bearing, and easier pruning, spraying, thinning, and harvesting.

Recently it has become possible to change the genetic make-up of plants by the application of certain chemicals such as colchicine. Positive results have been obtained, especially with marigolds and snapdragons. Application of this work to the breeding program with tree fruits and small fruits is now in progress. This procedure, when combined with the conventional breeding methods, promises to yield many forms hitherto not obtainable.

The investigations of pectins and pectic enzymes led recently to the development of a method for the better preservation of many fruits and vegetables by the use of minute quantities of calcium salts. The work on this project has also been extended to include a study of the well-known therapeutic effect of apples, apple products, and pectins. Considerable progress has been made already to explain the mechanism of the action of these materials in combating diarrhea.

Extraordinary gains in earliness of maturity and increased yields have been obtained by the use of "starter" solutions in the transplanting water for tomatoes and cabbage. The distinctive feature of the "starter" solutions used with such marked success in experiments here is the use of water-soluble phosphorus salts together with nitrogen and potash in a balanced ration. Phosphorus particularly

stimulates root development and promotes earliness, and the application of a "complete" nutrient solution around the roots just at the critical time when plants are transplanted helps them to become established quickly and grow vigorously. A small amount of water-soluble fertilizers used in this manner is extremely effective and gives very large returns from fertilizer applications, costing less than one dollar per acre. This research seems to be an important step in plant nutrition and more economical crop production.

The fertilizer-placement experiments are demonstrating new methods of applying fertilizers that result in greater effectiveness of the fertilizers in increasing crop growth, and marked savings in the amount of fertilizer required.

The investigations conducted in the development of a new vegetable fungicide resulted in the production of yellow cuprous oxide as a more potent type of product. The studies show that the fungicidal value increases as the particle size of cuprous oxide decreases and as the wave length of reflected light decreases. This increase in fungicidal value is probably due to an increase in reactive surface area on the particles which in turn results in an increased speed at which soluble copper is presented to the germinating spore. Some striking advances have been made in research on organic materials as fungicides for vegetable and fruit diseases. Several hitherto unknown toxicants have been discovered. The selection by breeding of a new late domestic or kraut type of cabbage resistant to cabbage yellows is well on the way towards stabilization. It is now in its third generation and, along with excellent quality, shows complete resistance. Selections of resistant late Danish types adapted to New York State are being developed.

The general trend in studies being made to develop control measures for insect pests is the replacement of arsenicals and other older pest poisons with organic toxicants. The reason for this change is twofold, namely, to find more effective insecticides and to avoid possible human-health hazards arising from the treatment of edible plants. Increased attention is being given also to the possibilities of utilizing parasites and other "natural" agencies in control. This principle, having been successfully demonstrated in the case of oriental peach moth, is now being actively investigated for codling moth and Japanese beetle.

Investigations to utilize more milk through development of new or improved dairy products have already given results of real value in new cream-cheese products, and encouraging results are being obtained in developing improved quality in surface-ripened and foreign types of cheeses. The need for a satisfactory retail package for natural cheeses may be met by the canning process now being perfected. Preliminary experiments indicate the possibility of using corn products more extensively in ice cream to replace a part of the foreign-produced cane sugar. Some thought has been given to increasing the market for skimmilk by the development of a superior casein plastic in the rapidly growing industrial field of plastics.

NEW PROJECTS UNDER CONSIDERATION

An orchard on a representative fruit soil in the Hudson River Valley, and another near Lake Ontario, are needed to answer many of the growers' questions, such as, which ones if any of the new varieties, the new rootstocks, and the new fertilizers are of commercial significance. The sweet cherry and the peach, in particular, should be tested under soil and climatic conditions that are suitable for their best development. Certain preliminary work in fruit breeding and other projects can be carried on more satisfactorily at Geneva than at distant points, but the final answer to many problems must be obtained in the locality where the particular fruit will be grown. Fruit growers have been insistent in their demands that the Station undertake the foregoing field experiments as affording a sounder basis for horticultural practices in the two areas.

The plasticity of plant life and its response to processes of domestication afford unlimited opportunities to the experimentalist in the field of plant breeding. No endeavor promises more to agriculture, or, at least, is of greater interest to the growers, than the production of superior sorts. The latter consideration is confirmed by their attention to the Station's productions, such as: the Lodi, Early McIntosh, Milton, Cortland, and Macoun apples; the Albion, Hall, and Stanley plums; the Fredonia, Ontario, Portland, Seneca, Golden Muscat, and Sheridan

grapes; the Catskill, Clermont, Culver, and Dresden strawberries; the Sodus purple raspberry; the Bristol and Naples black raspberries; and the June, Newburgh, Marcy, Taylor, and Indian Summer red raspberries. Fruit-breeding work necessitates the production of many thousands of seedlings and the use of a large acreage of land. The present acreage of the Station is not adequate for the carrying-on of this work on a scale that it merits. The acquisition of testing grounds in the Hudson River Valley and near Lake Ontario would relieve the immediate pressure, but to take care of the needs of this undertaking more land in the vicinity of the Station's grounds should eventually be purchased.

For several years the New York State Seed Improvement Association, composed wholly of farmers, has sought legislative action on a request for funds which provide for properly conducted control field trials of the various seed stocks offered by its members as well as those of commercial sources. The purpose of this effort is to insure improvement of seed and purity of seed supplies to the public.

The New York Nurserymen's Association has also been seeking state aid for the support of a research program calculated to shed light on a number of perplexing problems that beset the industry.

STAFF CHANGES

During the year there have been no major changes in the positions of heads of divisions at the Station, either through retirement or resignation.

RESIGNATIONS

W I. Zimmerman, Assistant in Research (Chemistry), June 30, 1938.
Joseph B. Moore, Assistant in Research (Entomology), January 31, 1939.
James G. Horsfall, Chief in Research (Plant Pathology), June 30, 1939.

DEATHS

Glen P Van Eseltine, Associate in Research (Pomology), November 15, 1938.

Mr. Van Eseltine was appointed to the Station staff in 1927, and during his years of service made numerous contributions on the taxonomy of the beans, sweet corn, and cucurbits of New York. Mr. Van Eseltine also conducted research on the botanical relationships of the apple, and on the hybridization of squash and pumpkins. His untimely death is a distinct loss to the Station and to the farmers of the State.

PROMOTIONS

Dr. James M. Hamilton has been promoted from Associate in Research to Chief in Research (Plant Pathology), effective July 1, 1939.
Dr. Laurence A. Carruth has been promoted from Assistant in Research to Associate in Research (Entomology), effective July 1, 1939.

APPOINTMENTS

Robert Sumner, Assistant in Research (Chemistry), July 1, 1938.
Edward H. Smith, Assistant in Research (Entomology), July 1, 1938.
Ralph Celmer, Assistant in Research (Chemistry), Sept. 1, 1938.
F. Leslie Dorn, Assistant in Research (Dairying), Sept. 15, 1938.
William Stepka, Technical Assistant (Pomology), Oct. 24, 1938.
W. S. Webster, Assistant in Research (Entomology), Feb. 1, 1939.
George D. Oberle, Associate in Research (Pomology), Mar. 1, 1939.
Mrs. Mabel Ruttle Nebel, Assistant in Research (Pomology) without salary, July 1, 1939.

RETIREMENTS

Miss Mary E. Woodbridge, Assistant in Research, will retire on June 30, 1939, after 13 years of service in the Seed Inspection Laboratory.

FELLOWSHIPS, INVESTIGATORSHIPS, AND GRANTS

The Fellowships and Investigatorships in force at the Station have been increased by two during the past year, one having to do with paper containers and the other with frozen desserts, while Grants have been received from 16 commercial companies for studies on problems of particular interest to them.

Eleven cooperative projects are being carried on with the United States Department of Agriculture; and cooperative work with the State Department of Agriculture and with the staff of the New York State College of Agriculture is also being continued, to the advantage of all parties to the agreements.

PUBLICATIONS AND INFORMATION

During the past year, the following number and types of publications have been issued by the Station: three Technical Bulletins; six General Bulletins; the Fifty-seventh Annual Report; four numbers of the quarterly *Farm Research*; six reprints from *Farm Research*, comparable to Circulars; and six Circulars. In addition, one General Bulletin and 16 Circulars were reprinted, making a total of 43 pamphlets of one type or another.

Supplementing these formal publications by the Station is a series of 53 so-called "Journal Papers" which appeared in various scientific journals and trade papers throughout the year, or which are awaiting publication in some such medium. These papers record the results of experimental work obtained in a wide range of projects, and are an increasingly important means of presenting results to other research workers promptly and in mediums readily available to them.

CARL E. LADD,
Dean and Director of Experiment Stations.

P. J. PARROTT,
Director of the New York State Agricultural Experiment Station.

APPENDIX IX

REPORT OF THE DEAN OF THE NEW YORK STATE COLLEGE OF HOME ECONOMICS

To the President of the University:

SIR: I have the honor to submit to you the annual report of the New York State College of Home Economics for the year 1938–39.

Resident teaching, extension work, and research in the College of Home Economics are becoming increasingly interdependent and are reinforcing one another. Problems presented by homemakers participating in the extension service are often the basis for research and classroom teaching. Likewise, laymen and students, as well as experts drawn from other organizations and state departments, contribute to the programs of conferences, training schools, and Farm and Home Week held at the College.

The full report of the College for 1938–39 includes the year's developments in resident teaching, extension teaching, and research.

RESIDENT TEACHING

The trend of resident teaching as a whole last year was to make courses functional for students in relation to their individual, family, and community life. Students as well as staff members are increasingly aware of the values and satisfactions resulting from such an approach in course work. Contributing to this change in focus were: the interchange of work between resident and extension teaching; cooperation with other social and educational groups; home and school visits by members of the staff; and requests from the student body for a more functional type of education.

EXTENSION TEACHING

In addition to the teaching of home economics through the extension service, probably the by-product of greatest value is the civic, social, and educational leadership which extension work provides in community, county, state, national, and international movements that affect family life.

Extension-service programs in home economics are gradually changing toward a better use of available resources for the enrichment of home life. This is being done through a coordination of agricultural, homemaking, and 4-H Club programs, and through cooperation with other social and educational groups.

GRADUATE STUDY AND RESEARCH

Research in home economics is still in its infancy in comparison with that in other fields, and homemakers and leaders of extension groups, as well as commercial and professional workers, need and constantly request scientific findings in relation to their everyday problems. For this reason, the College of Home Economics is choosing, for investigation, research problems that have a practical application, such as: the determination of practical methods for homemakers to use in the selection of soaps and water softeners; a study of sleeping, eating, and nervous behavior of nursery-school children; regulation of the manufacture and sale of articles of bedding in New York State; and a study of a house of average rental level in relation to family living. During the past year, work has continued on certain phases of the research on the nutritional value of New York State apples and potatoes, carried on in cooperation with the College of Agriculture.

THE STUDENT BODY

New students

The total number of applicants for entrance for the year 1938–39 including freshmen and advanced-standing students but not including students in hotel administration or special or graduate students, was 504 as compared with 517 the previous year. Of these, applicants for entrance into the freshman class numbered 403; 131 were accepted, 201 were refused, and 71 failed to complete applications or withdrew before action was taken by the Committee on Admissions. In September 1938, 120 of the accepted freshman applicants registered in the College.

Applicants for entrance with advanced standing numbered 101 of which 21 were accepted, 58 were refused, and 22 failed to complete applications or withdrew before action was taken. In September 1938, 17 of these accepted advanced-standing applicants registered in the College.

Total enrollment

Home Economics

Freshmen	120	
Sophomores	142	
Juniors	103	
Seniors	96	
		461
Special students	18	
		479
Graduate students	59	
Summer-school students	215	
		753
Less number counted twice	28	
		725

Hotel Administration

Freshmen	84
Sophomores	89

Juniors	61	
Seniors	55	
		289
Special students	2	
		291
Summer-school students	136	
		427
Less number counted twice	4	
		423

THE STAFF OF THE COLLEGE

Number employed

Exclusive of the Department of Hotel Administration and the members of the administrative staff paid jointly by the College of Home Economics and the College of Agriculture, the College of Home Economics employed during the year 1938–39 a total of 167 persons, some of them for part-time service. Calculated as full-time employees, this number becomes 142½. Divided according to major functions, this full-time number is distributed as follows: resident administration, 5; resident teaching, 43½; research, 13½; extension administration, 7½; extension teaching, 21; clerical, 39; care of building, 13.*

During the same period the Department of Hotel Administration employed, excluding staff members paid jointly by the College of Home Economics and the College of Agriculture, a total of 36 persons. Calculated as full-time employees, this number becomes 23. Divided according to major functions, this number is distributed as follows: administration, 1; teaching, 17; clerical, 4; care of building, 1.

Appointments during 1938–39

COUNSELING SERVICE: Mary L. Cockefair, B.S., 1938, Oregon State College, A.B., 1937, University of Wisconsin, part-time instructor, homemaking apartment: Jessie Rhulman, Ed.D., 1938, Columbia University, instructor.

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT: Ann Aikin, M.A., 1938, Michigan State College, part-time research assistant; Barbara Barber, B.S., 1936, University of Nebraska, part-time research assistant; Lucy Balmaine Hunter, A.B., 1938, Marshall College, part-time research assistant; Evelyn M. Krotz, B.S., 1932, University of Nebraska, part-time research assistant; Rose E. Smith, A.B., 1938, Cornell University, part-time research assistant.

FAMILY LIFE: Mary Ford, M.A., 1933, University of Toronto, instructor (first term).

FOODS AND NUTRITION: Alice Briant, B.S., 1938, McGill University, part-time research assistant; Josephine Brooks, M.S., 1927, Kansas State College, part-time assistant; Betty Collins, A.B., 1938, University of California, part-time research assistant; Milicent Hathaway, Ph.D., 1932, University of Chicago, instructor; Pearl Janssen, M.S., 1933, University of Wisconsin, instructor; Katherine Johnson, B.S., 1938, Utah State College, part-time research assistant; Ruby Osterman, M.S., 1938, University of Washington, part-time assistant; Hulda Anne Schuele, B.S., 1938, University of Chicago, part-time research assistant; Lois Purdy Shafer, M.S., 1936, Cornell University, extension instructor (first term); Clara Amanda Storvick, M.S., 1933, Iowa State College, part-time research assistant.

HOUSEHOLD ART: Vera Engel, B.F.A., 1931, University of Washington, part-time assistant; Eleanor Hupp, B.I.A., 1930, University of Minnesota, instructor (second term).

INSTITUTION MANAGEMENT: Genevieve Dziegiel, B.S., 1938, Cornell University, assistant manager of cafeteria; Eleanor Jane Irwin, B.S., 1934, Kansas State College, part-time research assistant.

TEXTILES AND CLOTHING: Frances Waring Fletcher, A.B., 1937, Marshall Col-

*The figures above include members of the staff on leave of absence.

lege, assistant (first term); Hazel Tharp, M.S., 1938, Pennsylvania State College, instructor (second term).

Changes in title and promotions during 1938–39

EXTENSION ADMINISTRATION: Carrie C. Williams, from assistant state leader of home demonstration agents to extension professor and assistant state leader of home demonstration agents.

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT: Jessie Freeman, from research assistant to assistant; Elaine Knowles, from extension instructor to instructor; Ruth Henderson Smith, from assistant to extension instructor; Mildred Spicer, from research assistant to assistant.

FAMILY LIFE: Mary Peabody, from assistant to instructor.

FOODS AND NUTRITION: Mollie Emerson Parker, from assistant to research assistant.

Resignations during 1938–39

COUNSELING SERVICE: Doris Schumaker, M.A., 1927, Columbia University, professor, June 30, 1939.

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT: Lucy Balmaine Hunter, A.B., 1938, Marshall College, part-time research assistant, December 21, 1938.

FAMILY LIFE: Faith Evelyn Davis, M.A., 1931, Columbia University, instructor, June 30, 1939.

FOODS AND NUTRITION: Josephine Brooks, M.S., 1929, Kansas State College, part-time assistant, June 30, 1939: Dorothy Clagett, M.S., 1935, Cornell University, part-time research assistant, June 30, 1939; Kathryn Traer Hodson, B.S., 1936, Parsons College, part-time assistant, June 30, 1939; Hulda Schuele, B.S., 1938, University of Chicago, part-time research assistant, June 30, 1939; Catherine Stainken, M.S., 1939, Cornell University, part-time research assistant, June 30, 1939.

HOUSEHOLD ART: Vera Engel, B.F.A., 1931, University of Washington, part-time assistant, June 30, 1939.

INSTITUTION MANAGEMENT: Eleanor Jane Irwin, B.S., 1934, Kansas State College, part-time research assistant, October 31, 1938.

TEXTILES AND CLOTHING: Frances Waring Fletcher, A.B., 1937, Marshall College, part-time assistant, June 30, 1939.

Appointments to become effective on July 1, 1939, or later

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT: Dawn Rochow, B.S., 1939, Cornell University, part-time assistant.

FOODS AND NUTRITION: Dorothy Hatch, B.S., 1930, National College of Education, part-time research assistant; Clarine Hughes, A.B., 1939, University of Toronto, part-time research assistant; Frieda Meyer, M.S., 1938, University of Iowa, part-time research assistant; Helen West Nutting, Ph.D., 1936, University of California, part-time research assistant; Marietta Nyman, B.S., 1938, Utah State College, part-time assistant; Annette Richetta, B.S., 1935, Northern State Teachers College, Marquette, Michigan, part-time research assistant; June Thorn, B.S., 1939, Cornell University, part-time research assistant.

Changes in title and promotions to be effective on July 1, 1939, or later

COUNSELING SERVICE: Margaret Mercer, from instructor to assistant professor; Jessie Rhulman, from instructor to assistant professor.

ECONOMICS OF THE HOUSEHOLD AND HOUSEHOLD MANAGEMENT: Barbara Barber, from research assistant to assistant; Jessie Freeman, from assistant to extension instructor; Alida Hotchkiss, from instructor to assistant professor; Mildred Spicer, from assistant to research assistant; Delpha Wiesendanger, from extension instructor to extension assistant professor.

FAMILY LIFE: Mark Entorf, from extension assistant professor to extension associate professor.

FOODS AND NUTRITION: Alice Briant from research assistant to assistant.

INSTITUTION MANAGEMENT: Helena Leahy, from instructor in home-making apartment to research assistant.

TEXTILES AND CLOTHING: Pauline Fuller from instructor to assistant professor; Helen Powell Smith, from acting extension assistant professor to extension assistant professor.

Leaves of absence during 1938–39

Lorna Barber, January 15, 1939, to June 1, 1939 (sabbatic); Alice Burgoin, October 1, 1938, to February 1, 1939; Hazel Hauck, second term (sabbatic); Grace Henderson, first and second terms; Doris Schumaker, first term (sabbatic), second term; Therese Wood, first term.

CARL E. LADD,
Dean, New York State College of Home Economics.

FLORA ROSE,
Director, New York State College of Home Economics.

APPENDIX X

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to present the report of the College of Architecture for the fiscal year 1938-39.

THE FACULTY

Professor John N. Tilton, jr. was appointed Assistant Dean of the College by the Trustees.

Professor Olaf M. Brauner, retired, was elected Professor Emeritus by the Trustees.

Professor George Young, jr. took up his teaching duties in September 1938 after having been on leave of absence for one year due to illness.

Professor Christian Midjo was on sabbatic leave for the first term and on leave of absence for the second term 1937-38. He resumed his duties in the Department of Painting and Sculpture in September 1938.

Assistant Professor John Hartell returned from a sabbatic leave of one year having spent his time most profitably working in the office of a prominent architectural firm in New York.

The term of Acting Assistant Professor Ross M. Braught expired in June 1939. His place has been filled by Mr. James O. Mahoney, appointed assistant professor of Fine Arts effective at the beginning of the next academic year. Mr. Mahoney spent one year (part time) on a temporary appointment teaching Professor Midjo's classes during the latter's absence in 1937-38. During the past year Mr. Mahoney won a national competition in mural painting for one of the two large canvasses for the Federal Building at the New York World's Fair. In addition to this work he completed a commission awarded by the World's Fair Corporation for a number of outdoor murals. Mr. Mahoney will retain his studio in New York, but spend the greater part of his time at Cornell.

The work in the History of Architecture has been strengthened by election to membership on the faculty of Mr. P. A. Underwood, Instructor in History of Art and a member of the faculty of the College of Arts and Sciences. Beginning in the fall of 1939, Mr. Underwood will lecture on the History of Ancient Architecture. During this year, he has been working in Classical Archaeology with seniors and graduate students of this College.

Mr. Harrison Gibbs, graduate of the Pennsylvania School of Fine Arts and Fellow in Sculpture of the American Academy in Rome, was appointed Instructor in Fine Arts, beginning his duties in September 1938.

Mr. Harrison P. Reed '38, Instructor in Architecture, resigned June 1939 to accept a position with a well known firm of building contractors in New York. His place will be filled by Mr. John T. Udall, B.Arch. '30. Mr. Udall will assist Professors Young and Baxter in the Department of Construction.

During the year Professor Young has served as President of the Association of Collegiate Schools of Architecture. Professor Bosworth was reappointed by Governor Lehman to serve another term as member of the New York State Registration Board for Architects; he also serves as a member of the Architectural Advisory Board of the University. The Dean continued to serve as Chairman of the National Commission of Fine Arts in Washington, member of the New York State Planning Council, member of the Board of Overseers Committee of the Graduate School of Design at Harvard University, and a member of the Architectural Advisory Board of the University. The Dean addressed the graduating class of the School of Fine Arts, University of Pennsylvania, June 14, 1939.

THE STUDENT BODY

138 students were registered in the College during the past year divided as follows:

	1st year	*2nd year*	*3rd year*	*4th year*	*5th year*
Architecture...	39	16	13	18	20
Landscape Architecture. .	5	1	0	2	7
Painting and Sculpture.....	5	4	4	3	1
Total.	49	21	17	23	28

It is interesting to note that the places of residence of students represent a wide geographic distribution including sixteen different states, Cuba, Trinidad, Canada, and China.

The entering class this past year, while not as large as we should like, was made up for the most part of excellent material. The number of entering architectural students was about as large as may be conveniently provided for in the drafting room. We are able, however, to accommodate a much larger registration in Landscape Architecture, Painting, and Sculpture and means are being taken to stimulate interest in these fields. The careful selective process for entering students is being continued in order to reduce, if possible, the number of those dropped due to lack of interest or ability.

During this year 10 students were dropped because of inability to keep their work up to the established standards.

PRIZES AND AWARDS

This year a collaborative team consisting of O. H. Dahlstrand, G. Wm. Atkinson, Ruth F. Rogers, and Elfriede Abbe, students in architecture, landscape architecture, painting, and sculpture respectively, won the Annual Collaborative Competition of the Association of the Alumni of the American Academy in Rome. This competition was open to students in colleges and schools throughout the country and more than one hundred teams competed.

Mr. Frederick W. Edmondson of the class of 1938 won the Fellowship in Landscape Architecture of the American Academy in Rome. Of the four men chosen for the final competition, three were graduates of the College. Out of a total of seventeen awards beginning in 1915, Mr. Edmondson is the twelfth holder of a degree from Cornell to win the Fellowship in Landscape Architecture.

Miss Elfriede Abbe, fourth year sculptor, was honored by having one of her compositions accepted by the Board of Design of the New York World's Fair. Miss Abbe enlarged her work for use outdoors and it may be seen near Perylon Hall, where distinguished guests are received.

THE CURRICULUM

The faculty has authorized certain changes in the courses of study leading to the degree of Bachelor of Architecture and of Bachelor of Landscape Archi-

tecture along lines which are designed to recognize more definitely the dependence of these professions, not only upon technical skill but also upon a cultivated taste and a training of the creative imagination. The curriculum for painters and sculptors has also been revised to provide for a more adequately coordinated technical training and cultural education.

Assistant Professor Kenneth Washburn, representing the Department of Painting and Sculpture, gave much time to the arrangement of art exhibitions held for the benefit of the University community in Willard Straight Hall. During the coming year the Department will continue to assist in the program of exhibitions.

The College of Architecture has for some years offered courses in the Principles of City and Regional Planning. In recognition of the growing significance of planning for the wisest use of both urban and rural land, the increased use of leisure time, the importance of public works projects, zoning, housing, and other pressing problems related to the welfare of large masses of people, instruction in the Department of Regional and City Planning has been expanded beginning with the academic year 1939-40. Courses will be given in the principles of city and regional planning, city planning practice, regional planning practice, housing, and park, parkway, highway, and freeway design. Related courses are given in the College of Arts and Sciences, more particularly in the Department of Government, and by the Colleges of Engineering and Agriculture. Instruction in city planning design is available to qualified students.

Funds, made available by the Carnegie Corporation for the work in Regional and City Planning, are sufficient to support the work up to June 1940. It is urgently recommended that arrangements be made to continue the work beyond 1940 in this increasingly important field. This new field of instruction has long since passed the experimental stage; it deserves a permanent place in the program of professional training offered in this College.

SCHOLARSHIPS AND FELLOWSHIPS

This year the number of First Year Scholarships, each having a value of $200, was increased from six to nine; the Scholarships for graduates of four-year schools, each having a value of $300, were reduced from five to three. These changes have proven wise because at this date, eight of the nine First Year Scholarships have been awarded for the coming school year and two of the three $300 Scholarships have been assigned.

The College cannot compete successfully with other Colleges of Architecture, with respect to graduate Scholarships and Fellowships, because the stipends available are much too low. It is recommended that, as soon as possible, each one of the three $300 Scholarships be increased to $400 and the University Fellowship of $400 be increased to two at $1000 each. This would place the College in a position to attract the ablest students of the Arts and compete upon a favorable basis with other Colleges of equal rank. The presence of students, graduates of four year schools who are candidates for a bachelor's degree and of graduate students on a fellowship basis, is most stimulating to the work of the undergraduates; it is an important factor in the success of the work of the College.

THE ALUMNI

In accordance with the custom established some years ago by Dean Young, a letter was addressed to each alumnus of the College. A printed eight-page booklet entitled Educational Plan was enclosed with this year's communication. This document was well received and was commented upon favorably by many prominent alumni of the College. The Dean has talked to interested graduates of the College concerning a formal alumni organization.

On Saturday of Alumni Week in June of each year a breakfast is held in the Exhibition Room of the College where returning Alumni gather. The custom is a popular one which affords former graduates of the College an opportunity to meet the members of the Faculty for an exchange of ideas.

SUMMER SCHOOL

On recommendation by the Faculty, the summer session heretofore held at this College was discontinued for this year. The Director of the Summer Session agreed that it would be more desirable to hold these sessions in alternate years beginning in 1940. Instruction is offered in Architecture and Landscape Architecture for students having had three or more years' training in design. The work in drawing and painting, however, continues as before.

PHYSICAL CHANGES AND EQUIPMENT

The rehabilitation of the central portion of the main drafting room in White Hall, accomplished in the summer of 1936, greatly improved working conditions, but this is only a part of the program for drafting room improvements and it is hoped that funds may soon be made available for extending this work into the north and south drafting rooms. In the same manner the changes in the top floor of Franklin Hall have fully justified the expenditure, but much remains to be done.

Collaboration between the various departments of the College is of great importance to the educational plan, but this is exceedingly difficult of attainment under the existing physical conditions. This raises the large question concerning more adequate housing for the whole College.

In the past when the College was engaged almost exclusively in the training of architects, the quarters, though cramped, did not in themselves constitute a serious handicap. Since that time, however, the College has undertaken a wider program of education, not only within its own jurisdiction but also in collaborative effort with other Colleges of the University. The physical handicaps resulting from inadequate quarters, more particularly for the work in drawing, painting, and sculpture, is now becoming more vital. Early consideration of this problem is respectfully recommended.

GILMORE D. CLARKE,
Dean of the College of Architecture.

APPENDIX XI

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to present herewith the report upon the work of the College of Engineering for the year 1938–39.

Ernest William Rettger, Professor of Mechanics of Engineering, died on October 9, 1938. He had been a member of the Faculty of the School of Civil Engineering since 1907, and at the time of his death was beginning his last year of active service before retirement. Dr. Rettger received his doctor's degree at Clark University in the field of mathematics. He was appointed Instructor in the School of Civil Engineering in 1907 and was promoted to Assistant Professor in 1908. He became Professor in 1922. Dr. Rettger's enthusiastic teaching, his helpfulness, and his sympathetic friendliness endeared him to students and staff. He was co-author of an important text on Mechanics.

Leslie A. Fenner, Instructor in Engineering Drawing in the Sibley School of Mechanical Engineering, died on October 20, 1938. He had served in the School since 1918. His unfailing loyalty of service to the school and to the hundreds of students to whom he gave instruction heightens the loss the school feels in his passing.

Dr. William Abbett Lewis, Jr. was appointed Director of the School of Electrical Engineering, effective February 1, 1939. Dr. Lewis received his training at the California Institute of Technology, and has had extensive experience in the electrical power field on the Pacific Coast, and for the past nine years was Central

Station Engineer of the Westinghouse Electric and Manufacturing Company at Pittsburgh. While doing graduate work at the Institute he also served on the instructional staff and at Pittsburgh gave instruction under the cooperative arrangement between Westinghouse and the University of Pittsburgh. He has been actively engaged in the development of protective devices for central stations, and transmission net works, and has contributed extensively to the literature on that subject.

The School of Electrical Engineering has lost two distinguished members of its faculty through retirement—Dr. Paul Martyn Lincoln and Dr. Vladimir Karapetoff. Dr. Lincoln, who had been Acting Director of the School since his formal retirement on June 30, 1937, was relieved from duty February 1, 1939, upon the appointment of Director Lewis. Director Lincoln had headed the School continuously since November 21, 1922, after a long and distinguished service in the Westinghouse Electric & Manufacturing Company. He had been identified with the early development of power at Niagara Falls.

Dr. Karapetoff joined the instructional staff of the School of Electrical Engineering in 1904. A vivid personality, and inspiring teacher, he will long and affectionately be remembered by a host of men who have studied with him. He has made important contributions to the literature of electrical engineering, and is the author of several books in this field. Professor Karapetoff received the Honorary Degree of Doctor of Science from Brooklyn Polytechnic Institute.

In the Sibley School of Mechanical Engineering Cecil Werner Armstrong was promoted from Instructor in Mechanics to Assistant Professor of Mechanics. In the School of Electrical Engineering Walter Wendell Cotner, and Dr. Wilbur Ernest Meserve were promoted to the rank of Assistant Professor. In the School of Civil Engineering Dr. Trevor Rhys Cuykendall was promoted from Research Associate to the Marc Eidlitz Instructor in Civil Engineering.

The instructional staff has been augmented by the addition of the following men:

Reginald B. Allen, Assistant in Administrative Engineering
Louis Schoudel Bock, Instructor in Administrative Engineering
John Campbell Georgian, Instructor in Machine Design
Gordon Matthews Hutchison, Instructor in Engineering Drawing
William Howden Kreamer, Instructor in Engineering Drawing
Niles Otto Myklestad, Instructor in Mechanics of Engineering
John Henry Shank, Instructor in Experimental Engineering
Edmond Joseph Schiller, jr., Instructor in Machine Design
Dana Demarest Sherrill, Instructor in Machine Design

Conferences on foundry practice and photoelasticity and training schools for municipal waterworks and sanitary works operators were held on the campus during the year, sponsored by the College in cooperation with outside organizations. The New York Regional Foundry Conference was held here for the second successive year, meeting for two days in November. In cooperation with the Municipal Training Institute of New York State and other groups, the College held a two-week training school for waterworks operators in February and March and a three-day school for sanitary workers in April. Satisfactory completion of the courses offered in such schools is required by state law for certificates showing ability to hold certain classes of positions in municipal service. The semi-annual Eastern Photoelasticity Conference met here for one day in May, the first time the group had assembled outside New England.

As anticipated, the enrollment in the freshman class increased over the preceding year, with limited enrollment in effect in Chemical Engineering. The present size of the freshman class closely approximates the limit that can be effectively handled by our present facilities.

Considerable new equipment has been purchased during the year; augmenting in important ways the facilities of the College. Our larger program of development continues to be our most urgent requirement.

S. C. Hollister,
Dean of the College of Engineering.

APPENDIX XII

REPORT OF THE DIRECTOR OF THE GRADUATE SCHOOL OF EDUCATION

To the President of the University:

SIR: I have the honor to present the report of the Director of the Graduate School of Education for the year 1938-39.

ENROLLMENT

During 1938-39 seventy-six more undergraduates were enrolled in Education than in 1937-38. Of the 710 enrolled, 228 were seniors, 257 were juniors, 210 were sophomores, 1 was a freshman, while 14 were specials. Five hundred and six were registered in the Department of Rural Education and 204 in the Department of Education. Three hundred and nine were men and 401 were women.

There was little change in the total number of graduate students enrolled, as compared with last year. There was a slight decrease in the number of candidates for the Doctorate having a major or a minor in Education, but a slight increase in the number majoring or minoring for a Master's degree.

	1938-39			*1937-38*
	First term	*Second term*	*Both terms*	*Both terms*
Number of different students registered:				
a. With Education* as major	44	41	62	59
b. With Education* as minor	39	27	46	44
Number who are candidates for:				
a. Ph.D. (Major in Education*)	21	13	21	25
b. Ph.D. (Minor in Education*)	14	8	17	21
c. M.A. or M.S.	30	27	40	29
d. M.A.Ed. or M.S.Ed.	15	15	22	21
e. Other degrees	1	1	2	2
f. No degree	2	4	6	5
Geographical Distribution:				
a. Number of different states represented	24	19	25	24
b. Number of foreign countries represented	4	5	4	6
c. Number from New York State	40	39	58	51

Beginning with next year, there probably will be a fair increase in the number of candidates for the Master's degree because of the effect of the five-year program. Within a few years the number of Masters will be markedly larger.

PLACEMENT

The records of the Bureau of Educational Service cover the year beginning with the fifteenth of November. Mr. Eldred, Chairman of the Bureau, presents the following data for 1938-39 as compared with 1937-38.

	For 1937-38		*For 1938-39*	
Number placed:				
Seniors	76		71	
Graduate students in residence	47		52	
Graduates in residence	2		11†	
Graduate students in the field	91		74	
Graduates in the field	65	281	50	258

*Education or Rural Education.
†Including six non-registrants in home economics.

Positions filled:				
Through Bureau on direct notice from employer to University	90		102	
Through University outside Bureau	18		19	
Through individual effort alone	61		71	
Through outside placement bureaus and commercial	47		26	
Uncertain	12	281	13	258
Institutions supplied:				
Colleges, universities, and normal schools	77		65	
Private schools	10		9	
Public schools	167		159	
Other institutions	27	281	25	258

"An analysis of the above table indicates that, while the total number placed decreased by 23, the number of resident students placed increased by 9 and the Bureau directly placed 12 more students for 1938-39 than it did for the preceding year. The decrease in movement among the graduates and graduate students in the field was due largely to economic factors which lessened the number of opportunities in the higher salary ranges and also to effects of the recently-enacted tenure law in New York State. The decrease in total placement by eight per cent compares rather favorably with the decrease by about fifteen per cent for the nation as a whole.

"A more detailed study will show that the greater part of the senior placement continues to be in the special fields of home economics and vocational agriculture.

"Up to the time that the New York State Legislature cut the State aid for education by ten per cent, the Bureau had enjoyed a very successful season as compared with past years. Since the action of the Legislature, the demand for teachers has greatly dropped off. There is good reason to believe that, with a condition of reduced salaries, the abolition of teaching positions, and general feeling of insecurity, the total number of placements this year may be lower than that of last year."

During the year the Chairman visited one hundred schools, interviewed one hundred and twenty-six school administrators, thirteen board members, and twenty-four teachers. He traveled a total of over 3500 miles.

THE FIVE-YEAR PROGRAM FOR THE PREPARATION OF SECONDARY SCHOOL TEACHERS

The policy of a five-year program for secondary school teachers, approved by the faculty of the Graduate School of Education in February, 1938, has now been made effective through the adoption of several specific curricula. In conformity with a general pattern of teacher education, curricula have been established for prospective teachers of academic subjects, of agriculture, and of home economics. Comparable to these five-year curricula are one-year curricula in industrial arts and in industrial and technical subjects, each planned as a fifth year for teachers in these fields who have received their undergraduate preparation at institutions other than Cornell. Since a special announcement (Volume 31, No. 3) has been issued on the five-year program, space will not be taken here for more than a few observations regarding the objectives and nature of this program.

One of the most striking developments in American education in recent times has been the growth of the secondary school. The 80,000 pupils enrolled in public high schools in 1870 had become 519,000 in 1900 (in grades 9-12), 4,399,000 by 1930, and 5,669,000 by 1934. In addition, there were over a million pupils in the seventh and eighth years of reorganized secondary schools. Recent estimates place the present number in grades 9-12 as approximately 6,500,000. The percentage of all pupils enrolled in high school had increased from 1.2 in 1870 to 3.3 in 1900, to 17.1 in 1930, and to 21.4 in 1934. The percentage of children four-

teen to seventeen years of age attending high school was about 65% in 1934. The largest increase had come in the rural areas, the percentage being 60.5 in 1934 as compared with 29.7 in 1926.

Unless there is a marked change in the general economic situation, it seems likely that this growth will continue until approximately all normal persons of secondary school age are enrolled.

Such increase has, naturally, had a marked effect upon the offerings of the secondary school. Although the number of young people going to college has also increased, the ratio of college students to high school pupils has decreased, being 1 to 5.3 in 1936 as compared with 1 to 2.9 in 1900. Approximately one-third only of those in the twelfth grade during recent years have enrolled as freshmen in some type of higher educational institution. Clearly, therefore, college preparation cannot be accepted as the exclusive, or even the major, purpose of a secondary school today. For those young people who, from choice or necessity, enter some kind of occupation without college training, various special curricula need to be established. One or more curricula in agriculture, in home economics, in commercial subjects, and in various phases of industrial education are now found even in high schools of medium size. In the larger cities where the comprehensive high school is not practicable, special schools of secondary grade have been organized for such industries as textiles, needlecraft, printing, and the like.

Since a teacher education program should be built upon the needs of the school population, it is evident that an adequate program for the preparation of high school teachers must take into account changing conditions such as those mentioned above.

The Cornell program has as its objective the preparation of teachers capable of guiding young people and of instructing them in regard to the major responsibilities of life. Thus, while Cornell expects its secondary school teachers of English, of science, of social studies, and the like, to be thoroughly conversant with the subject matter of instruction in these fields, it expects also that the teacher will know how to use that subject matter in assisting young people with their various problems. Clearly, this conception of the teacher's responsibilities requires greater breadth of preparation than is demanded where the teacher has contact only with those who plan to attend college. Likewise, since there must be developed ability to deal with real problems rather than with abstract ones, a more accurate scholarship and an understanding of greater depth rather than less is needed.

Let us take the youth problem as an illustration of the type of responsibility that the high school teacher must face. This problem has long been with us, but it has, as we all realize, assumed unusual significance since the depression. Many of us believe that it is the most important one facing America today; furthermore, that it is, perhaps, the most difficult, partly because one direct and useful way of attacking it, namely through employment, appears to be largely beyond our control. The prospective teacher in a modern secondary school needs, therefore, to understand the social and economic conditions that have produced this problem. This implies that such a teacher shall have given sufficient attention to history, economics, and sociology that the characteristics of modern American life will be understood in perspective. If he is to deal wisely with unadjusted youth, the teacher must have an interest in young people, a sympathy with their various problems—educational, recreational, vocational, social, economic, etc.—, and an understanding of ways in which these problems may be attacked. To develop this interest, sympathy, and understanding requires contact with a situation where there is available a wide variety of intellectual resources.

Cornell has certain lacks in its teacher education program from the point of view of providing these resources. At the present time, the University has no curriculum in art or music organized for public school teachers. It has none in the commercial field. Offerings in health and physical education are not quite adequate for public school workers. In some of these fields discussions have been going on with a view to organizing the facilities of the University for teacher education, but final decision has not been made except as regards health education. Cornell has, however, certain significant resources. It has offerings in in-

dustrial and technical subjects and in industrial arts. It has outstanding offerings in the academic subjects, in agriculture, and in home economics.

Our opportunity, therefore, lies in the utilization of our resources for the preparation of secondary school teachers. If our program is effective, the teacher of English will appreciate the fact that young people must have vocations and that they must have specific training for those vocations. He will understand the general nature of the vocational resources in order that he may, as he teaches English, build upon the vital interests and needs of young people. Likewise, the teacher of agriculture, while concerned with the development of vocational proficiency, will realize that farmers are citizens, that they have not only social and economic concerns but also that they, like other citizen groups, have appreciations of various kinds that should be developed.

Our major problems, as we enter this new program, may be summarized as: (1) the selection, as prospective teachers, of superior persons who have an understanding of young people and their problems and who have a genuine interest in them; (2) a preparation of sufficient breadth and depth that the teacher will be able to use the resources of his subject field in preparing youth to meet the many responsibilities of life; (3) the provision of such opportunities at various levels for practice and apprentice teaching that habits of good teaching may be developed to a point of reasonable proficiency; (4) the development of sufficient insight into the educative process that the teacher may be constructively critical of the community's educational program with respect to meeting present-day needs and of his own contributions to that program.

OTHER TEACHER EDUCATION ACTIVITIES

After studying the matter for more than a year, a special committee appointed by President Day has presented a program in industrial arts education. This is a fifth year curriculum, intended for teachers and supervisors who have had their undergraduate work in other institutions. This program stresses three needs: the development of creative ability through a special project-development laboratory; an increase in technical knowledge; and an understanding of social trends. Thoughtful leaders in the field of industrial arts believe that in the future the teacher of this subject must have a greater understanding of technology and of technical processes than has been required heretofore. Our program was recommended after consultation with a committee representing the State Education Department. It has been accepted as a provisional one for a period in which it is hoped that normal schools and teachers colleges devoting themselves to industrial arts will increase the requirements in basic science, in technology, and in mathematics.

The work in industrial and technical education, established in the fall of 1938, has proceeded normally. There are problems of correlating work in this field with the offerings in a technical college, such as Engineering, but it is hoped that, as these problems are discussed, there will be complete understanding of the program and of its importance in a comprehensive scheme of secondary education. Perhaps the major difficulty is that of making the program available to those who want and need it. Teachers in this field are expected to be graduates of a technical college and to have had at least three years of experience in industry. By the time this preparation has been completed, most of the men have assumed family responsibilities. It becomes difficult, therefore, in practically all cases and impossible in many, for such students to take a year's leave of absence for further study without pay. Some form of financial assistance through scholarships, fellowships, or assistantships would seem to be imperative if the needs of our developing vocational and technical schools are to be met.

There is a real need for one or more universities having adequate facilities to undertake the preparation, on advanced levels, of specialists in certain phases of Home Economics Education. In the belief that Cornell, with its offerings in Home Economics, in basic Science, in Art, and in Education, has the necessary resources, active steps were taken in the fall of 1938 to organize these resources into appropriate curricula. At that time the Home Economics and Education groups cooperated in the appointment of a joint committee with responsibility for estab-

lishing curricula for three types of workers: (1) supervisors of home economics in public schools, (2) teacher trainers in home economics, and (3) extension workers in home economics. The committee has been engaged in this task for the last several months and it is hoped that the results of its deliberations will be available for dissemination through the Announcement for 1939-40.

A major project for the next year or two will be a restudy of the offerings in Education, authorized by the faculty for the purpose of making such adjustments as appear desirable in the light of changing educational conditions.

SPECIAL SERVICES TO THE PROFESSION

The Thirteenth Annual Parent-Teacher Institute, held in April, 1939, continued its service in the field of parent-teacher cooperation, the theme being "Turning the Spotlight on Education." Six hundred and nine persons were registered, of whom 493 were officers in local, district, or state Parent-Teachers organizations.

The 1938 Summer Session showed an enrollment of 642 different individuals in Education, as compared with 592 in 1937. Thirty instructors, of whom 12 were visitors, offered 53 courses with a total registration of 1288. In this group were 30 college teachers, 90 principals and superintendents, 371 secondary school teachers, and 42 elementary teachers. Thirty-five were candidates for the Ph.D., eighty-six for the Master of Arts or the Master of Science degree, two hundred and fifty for a Master of Science in Education degree, and eleven for the Master of Science in Agriculture degree. Fourteen were non-candidates. Of the 642, 413 were registered in the Graduate School. Twenty-nine were doing professional work in colleges, 244 in city schools, and 140 in central rural and consolidated schools. Thirty states and two foreign countries were represented.

The Fifth Summer Session Conference, held August 3-5, 1938, represented a departure from former policy in that it was devoted to a general analysis of the youth problem. The 1939 conference will have as its theme, "Youth and Occupational Adjustment," while it is expected that other phases of this problem will be considered in other summers. The broadened scope of the conference has brought a considerably larger number of persons from outside the Summer Session, there being about 250 registered in 1938.

The Graduate School has made available a new type of program for the degrees of Master of Arts, Master of Science, and Master of Science in Agriculture. This is the so-called Plan B. Plan A is the traditional method for earning these degrees, requiring concentration in one major and one related minor as well as the preparation of a thesis. Secondary school teachers have in many cases found Plan A unsuited to their needs. Most secondary school teachers cannot devote themselves entirely to physics or to chemistry or to history. Commonly they are required to teach all of the sciences or all of the social studies. The result has been that the type of concentration demanded by Plan A has not enabled these teachers to remedy their shortcomings for secondary school teaching. Furthermore, many who have come up through a teachers college or a small college have not had the amount of preparation in a specific department required by Cornell University of those who major in that department. The result has been that many secondary school teachers who should have devoted themselves to more adequate preparation in their subject and in related fields were compelled to follow the program for the degree of Master of Science in Education in order to secure the flexibility in program desired. Under Plan B, secondary school teachers may follow one field of concentration (such as Biological Sciences, Education, English, Fine Arts, Foreign Languages, Home Economics, Mathematics, Physical Sciences, Social Studies, Technical Agriculture) and a field of distribution. Within the field of distribution, the candidate who has Social Studies, say, as his field of concentration, may with the approval of his Committee, select courses in any other field, including Education, which will contribute to his more adequate preparation for secondary school teaching.

JULIAN E. BUTTERWORTH,
Director of the Graduate School of Education.

APPENDIX XIII

REPORT OF THE ADMINISTRATIVE BOARD OF THE SUMMER SESSION

To the President of the University:

SIR: I have the honor to submit in behalf of the Administrative Board of the Summer Session the following report of the Session of 1938.

The following appointments to the Administrative Board of the Summer Session have been made:

Professor B. S. Monroe, for a term of four years, to succeed Professor R. E. Cushman, whose term expired on November 1, 1937.

Professor Howard B. Meek, for a term of four years, to succeed Professor H. H. Whetzel, whose term expired on November 1, 1938.

Assistant Professor W. W. Flexner, for a term of four years beginning November 1, 1938. By this appointment the Board is enlarged to consist of six members.

A more complete and illustrated general Preliminary Announcement of the Summer Session was prepared and distributed. The State Summer School of Home Economics also prepared for the first time a preliminary booklet of the offerings in that College. The Announcement of the Summer Session again contained illustrations of scenes of the campus.

The Summer Session of 1938 began on July 5 and ended on August 13. The practice of offering final examinations at the last meetings of the classes was discontinued and all final examinations were conducted on a definite schedule, which included the last two days of the Session. By action of the Board of Trustees on October 30, 1937, the tuition charge was changed from $50 to $55, and fees for Willard Straight Hall and for automobile registration were abolished. A considerable simplification of the routine operation of the offices concerned resulted from these changes.

The faculty of the Session of 1938 consisted of 213 members of the University staff, and 36 instructors from other institutions. The total number of courses offered was 333. The registration showed some gain. Other significant facts about attendance are shown in the following tables, in which corresponding data for 1937 are given.

ATTENDANCE

	1937	*1938*
Men	1139	1188
Women	857	869
Totals	1996	2057

ATTENDANCE BY SCHOOLS

University Summer School	1342	1359
State Summer School of Agriculture	878	773
State Summer School of Home Economics	163	214
Summer School of Hotel Administration	164	135
	2547	2481
Less double registrants	551	424
Totals	1996	2057

STUDENTS IN THE GRADUATE SCHOOL

Registered in the Summer Session	641	649
Registered under personal direction	188	150
Totals	879	799

CLASSIFICATION OF STUDENTS BY DEGREES

Doctor's degree	7	16
Master's degrees	205	220
Bachelor's degrees	867	877
Undergraduates	607	584

CLASSIFICATION OF TEACHERS IN ATTENDANCE

Colleges and Universities	137	122
Junior and Senior High Schools	635	567
Principals, Superintendents, Supervisors	87	97
Grade Schools	91	132
Others (Normal Schools, Junior Colleges, Business Schools, etc.)	14	46

STUDENTS BY GEOGRAPHICAL DISTRIBUTION

New England	134	149
Middle Atlantic (excl. New York)	272	264
New York State	1194	1240
South	125	130
South West	33	30
Rocky Mt. States	11	4
Middle West	140	166
Pacific Coast	12	14
Canada	30	22
Foreign countries	45	38

LOREN C. PETRY,
Director of the Summer Session.

APPENDIX XIV

REPORT OF THE DEAN OF WOMEN

To the President of the University:

SIR: I have the honor to submit to you the following report of the Dean of Women, for the year 1938-39.

ENROLLMENT

The enrollment of women students was increased by approximately one hundred over the previous year and the housing of these taxed all resources. Besides the six dormitories, and thirteen sorority houses which had been sufficient for a number of years, seven cottages on or in the vicinity of the campus were used. The residents of four cottages took their meals at Sage and those of the other three at Risley Hall. For the enrollment by college, residence, and class, see Table 1.

HEAD RESIDENTS AND CHAPERONS

The buildings used and the chaperon for each are as follows:

Dormitories

Balch I	Miss Mary Cornell
Balch II	Mrs. Elsa Eisinger
Balch III	Mrs. N. C. Daniell
Balch IV	Mrs. Mabel Conger
Risley	Mrs. Fannie Russell
Sage	Miss Grace Seely

(*Continued on page lx*)

TABLE I

ENROLLMENT BY COLLEGE, RESIDENCE, AND CLASS

1938-39

	FIRST TERM								SECOND TERM							
	1939	1940	1941	1942	*Total Under-Grads*	*Spec.*	*Grads*	*Total*	1939	1940	1941	1942	*Total Under-Grads*	*Spec.*	*Grads*	*Total*
Balch	145	15	155	8	323	..	6	329	130	13	154	14	311	..	9	320
Risley	..	71	13	116	200	..	...	200	4	67	10	120	201	..	...	201
Sage	1	75	10	113	199	..	...	199	1	77	11	112	201	..	...	201
Sorority	82	51	102	..	235	1	6	242	79	52	96	...	227	.	9	236
Room and Board	14	20	29	20	83	1	2	86	10	19	29	18	76	1	3	80
Home	39	24	34	35	132	10	26	168	34	19	32	33	118	9	22	149
Sp. Permission	4	.	5	5	14	..	1	15	2	..	4	4	10	.	..	10
Relatives	3	1	...	2	6	..	1	7	2	1	1	2	6	..	2	8
7 Central	5	1	..	..	6	..	3	9	5	1	..	...	6	.	4	10
410 Dryden	...	2	..	8	10	..	1	11	...	2	...	6	8	.	2	10
5 East Avenue	...	8	1	9	18	..	..	18	...	9	.	9	18	..		18
15 East Avenue	...	4	..	15	19	..	1	20	...	4	1	13	18	..	1	19
9 South Avenue	...	3	.	14	17	.	1	18	.	3	..	14	17		1	18
613 Thurston	.	..	..	10	10	..	1	11	.	.	1	7	8	..	1	9
722 University	.	1	1	15	17	..	..	17	.	...	...	...	...	..	...	....
308 Wait	...	2		15	17	..	1	18	.	2	...	15	17	..	1	18
Approv. Rooms	3	2	..	..	5	7	72	84	2	1	1	..	4	4	77	85
Approv. Apts	..		...	.	.	1	33	34	1	1	.		2	1	28	31
Commuting	1	2	2	2	7	..	3	10	3	3	2	2	10	..	2	12
Non-Resident	1	..		...	1	..	..	1	1		.	...	1	.	...	1
Total	298	282	352	387	1319	20	158	1497	274	274	342	369	1259	15	162	1436
Enrollment by colleges:																
Home Economics	92	99	139	122	452	.	...	...	88	99	138	120	445	..	..	....
Agriculture	36	29	48	70	183	.	.	.	29	28	44	68	169	..	..	....
Arts	145	147	150	179	621	.	.	...	131	140	142	166	579	..	...	..
Architecture	7	1	3	5	16	..	...	...	7	1	3	5	16	..	.	....
Medical	..	..	..	..	..	..	.	....	..		.	.	.	..	...	....
Arts—Chemistry	..	1	1	.	2	..	...	...	.	1	1	..	2	..	...	....
Law	7	2	.	..	9	..	.	. .	7	2	..	.	9	..	.	....
Hotel	2	1	7	4	14	..	..	.	3	1	9	3	16	..	...	....
Veterinary	7	1	...	..	8	..	...	....	7	1	1	..	9	..	..	....
Fine Arts	1	1	2	4	8	..	...		2	1	2	4	9	..	...	.
Engineering	1	...	2	3	6	..	...	.	...	..	2	3	5	..	...	....
Total	298	282	352	387	1319	..	...	..	274	274	342	369	1259	.	...	...

Housing of Transfers:

Home.	Balch	Room & Board	Cottages	App. Rooms	Commuting	Risley	Sage	Sororities	Total
5	9	3	7	4	1	8	8	3	48

Cottages

410 Dryden	Miss Virginia Davidson
5 East	Mrs. Cornelia Ehrgott
15 East	Miss Mary Effie Cameron
9 South	Miss Helen Bush
613 Thurston	Miss Sybil Saxton
722 University	Mrs. W. G. Bullard
308 Wait	Mrs. Tema Clare

Sororities

Alpha Epsilon Phi	Mrs. F. A. Cleveland
Alpha Omicron Pi	Mrs. E. J. Reed
Alpha Phi	Mrs. Mary J. Coles
Alpha Xi Delta	Miss Natalie Edgar
Chi Omega	Mrs. Ida K. Lawlor
Delta Delta Delta	Mrs. Irene Belding
Delta Gamma	Miss Esther Kopke
Kappa Alpha Theta	Mrs. Claude Case
Kappa Delta	Mrs. Marian N. Hayden
Kappa Kappa Gamma	Mrs. Maude Winger
Pi Beta Phi	Mrs. Leila Mylander
Sigma Delta Tau	Mrs. H. Abendschein
Sigma Kappa	Mrs. Fred French

Several changes took place among the chaperons of sorority houses and cottages during the year. Since the residences at 410 Dryden Road and 722 University Avenue were opened late it was difficult to secure permanent chaperons and each of these residences had several chaperons for short periods only during the first semester. The house at 722 University Avenue was closed at the end of that time and the residents moved into Balch and Risley. Miss Virginia Davidson served as chaperon at 410 Dryden Road for the second semester.

Mrs. Leila Mylander who had served as chaperon at the Pi Beta Phi house for a number of years was obliged to resign at the Easter Recess because of serious illness. Her position was filled by Mrs. Mary Ames Bloss of Leonia, New Jersey. Mrs. Ida Keys Lawlor resigned her position at the Chi Omega house in March. Her position was filled by Miss Emily Knapp of Binghamton. Mrs. F. A. Cleveland, for four years chaperon at the Alpha Epsilon Phi house, died in March after a brief illness. Her position was filled for the remainder of the academic year by Miss Esther Rodgers. Mrs. Ruth Enos of Chaumont, New York, will fill this position beginning in September.

SOCIAL LIFE

With the excellent programs sponsored by Willard Straight Hall, with that of Barnes Hall and its constituent groups, and with the spontaneous and planned affairs of the numerous university student organizations and groups, the number of social affairs held on the campus totaled more than seven hundred last year. Definite attempts were made to make it possible for every student to have some social and group life if desired.

TABLE 2

SUMMARY OF SOCIAL AFFAIRS REGISTERED IN THE OFFICE OF THE DEAN OF WOMEN

1938-39

	Informals	*Formals*	*House Parties*	*Miscellaneous*	*Total*
Organizations having houses	217	63	111	89	480
Organizations not having houses	97	26	12	55	190
Total 1938-39	314	89	123	144	670

SUMMARY COMPARED WITH PREVIOUS FOUR YEARS

	1934-35	*1935-36*	*1936-37*	*1937-38*	*1938-39*
Informal Dances	288	266	326	307	314
Formal Dances	104	99	102	124	89
House Parties	92	89	94	58	123
Other Functions	52	51	20	89	144
Total Functions	536	505	542	578	670
Number reported by organizations having houses	421	396	408	428	480
Number reported by other organizations (not having houses)	115	109	134	150	190
Largest number reported by one organization	27	25	17	16	24
Number of these groups reporting ten or more functions	9	6	9	14	14
Number of these groups reporting from five to nine functions	36	38	39	35	50
Number of these groups reporting from one to four functions	91	75	89	84	81

OFFICE STAFF

The Dean of Women's office staff was unchanged last year except for the secretary who was Mrs. Dorothy Hammerschmidt. Miss Eleanor Simonds completed her twelfth year as Assistant in charge of employment for women students. Miss Margaret Thompson finished her fourth year, with the same general duties as previous years—checking of records, registering of social affairs, and housing for graduate women. Both assistants work regularly with student officers of dormitories and other residences. Their reports upon their specialties are included in this report.

TABLE 3

EMPLOYMENT REPORT

1938-39

	1st Term		*2nd Term*	
Earning Room and Board				
In homes	85		78	
In dormitories	7		7	
		92		85
Waiting Table and Cafeteria Work				
In dormitories	122		110	
In Willard Straight	28		33	
In sororities	17*		17*	
In Home Economics Cafeteria	12*		12*	
		179		172
N. Y. A.		43		52
Desk Work in Dormitories (not including substitutes)		30		30
Occasional Part-time Work (care of children, serving, etc.)		81*		81*
Total		425		420

The above report shows considerable increase over last year in the number of women earning room and board in private homes. Twenty more started the year

*Average for year.

1938-39 earning room and board than the year 1937-38, and there were ten more at the beginning of the second term. (This may have been due to increased enrollment, and, in a slight degree, to a greater leniency in permission for off-campus residence due to the congestion in the dormitories at the beginning of the year.)

The total number of women doing part-time work as listed above includes only those who obtained the work through this office. Undoubtedly a great many other students do such work through direct requests from faculty, etc. One hundred and sixty-eight calls came to this office for this type of work and these calls came from ninety employers. A large number of the employers who called in once for student help, arranged thereafter to get in touch directly with the students, or arranged for regular weekly hours of work.

Quite a number of women do more than one type of work. For instance three of those earning room and board were also on N.Y.A. A number of waitresses also do N.Y.A. work and occasional other part-time work. In spite of this overlapping, however, a conservative estimate of the number of women students doing some work to help themselves financially, would remain approximately one-third of the total undergraduate enrollment.

WOMEN STUDENTS EARNING ROOM AND BOARD IN PRIVATE HOMES

	1928–29			*1938–39*	
	1st term	*2nd term*		*1st term*	*2nd term*
Arts	21	19		15	12
Agr.	4	2		26	24
Home Ec.	24	22		42	41
			Arch.	1	1
			Hotel	1	
	49	43		85	78
Total enrollment (undergraduate)	1132	1080		1319	1259

VOCATIONAL INFORMATION

This department of work increases in volume each year. Several individual and conference speakers have given talks on various types of occupations for women with individual conferences following these. Students like to talk over their individual problems and the office is busy, much of the time, discussing with individuals what to do, what training is necessary and where to get it, how to "get into" certain fields, where certain types of work will logically lead, what to do for a year or two before marriage. Some information on some six hundred occupations is on file in this office.

W. S. G. A.

The Women's Self Government Association completed its forty-first year of continuous functioning with credit to itself and its officers. The officers are taking their responsibilities seriously and are interested, for the most part, in doing constructive work. They change their regulations each year, modifying them as they feel members can take more and more personal responsibility. They are trying to give every member an opportunity for development in some organization—hobby, social, intellectual, sport, etc.—though as usual not more than about fifty per cent of the students take part as yet in activities of any kind. It has been a pleasure to work with W.S.G.A. officers this year.

LOANS

The various student loan funds have been most valuable as usual. From the Woman's Student Loan Fund sums varying from $35.40 to $500 were loaned to fifty-six women students. Sixty-one loans were made and the amount totaled $10,027.86. From the Hunter Loan Fund eight loans were made totaling $1,733.20.

Aside from these are several smaller funds deposited by individuals and organi-

zations with the Dean of Women, which have been invaluable to meet particular emergencies. The Alumnae Loan Fund, raised years ago by the Alumnae for short-time loans without interest, is used frequently. Last year thirty-three loans varying from $5 to $60 were made. The turn-over was so rapid that $884 was loaned from a fund of about $300. Sigma Delta Epsilon (Seientific Honorary) and Pi Lambda Theta (Education Honorary) have been of assistance for graduate women.

SUMMER SESSION 1938

The enrollment of women students was slightly increased over the previous summer though it has not yet reached pre-depression figures. The four Units of Balch and Sage were open as places of residence, and several of the cottages and sorority houses. In addition to Willard Straight social and other activities and those of departments, the Dean of Women and the Head Residents of Balch Halls held a reception in Balch Court one evening, and Miss Seely did some informal entertaining at Sage.

R. LOUISE FITCH,
Dean of Women.

APPENDIX XV

REPORT OF THE DIRECTOR OF ADMISSIONS

To the President of the University:

SIR: As the class entering in September 1938 was the tenth to enter since the establishment of the Office of Admissions it seems timely again this year to present some comparative figures. My annual report to the President of five years ago contained comparative tables for the five-year period concluding in September 1933. These may be consulted by anyone interested in the barren census they represent. They will perhaps have more interest for a historian fifty years hence than they have for us now; for five years, or even a decade, is a brief span in the life of an institution like a university,—too brief to mark many trends of large significance.

One trend, however, in the period ending in September 1933 was decidedly marked, and that was the steady decrease in the total number of applications from a high of 3427* for September 1929 to a low of 2591* for September 1933. The trend in the next five-year period was directly opposite, beginning with a total of applications for September 1934 of 2821* and ending in September 1938 with 4318.*

The statistics for the several colleges follow, arranged to facilitate comparison in a tabular form like that used in the report for 1929–1933. In general, they are presented without comment, as they speak for themselves.

TABLE I

The following table shows the number of applications and the number admitted in September of the past five years to each of the undergraduate colleges. Only those have been counted as applicants who actually filed formal applications for admission as regular students; persons indicating intent to enter, whether by letter or by interview, have not been included, nor have so-called "special students." Under "admitted" are included those who met all university requirements and the particular requirements of the college concerned and who were notified that they were entitled to matriculation as regular students—whether they afterwards registered or not.

*These figures include applications for entrance as regular students to the several colleges sometimes called "undergraduate" to distinguish them from the Law School, the Medical College, and the Graduate School. Applications for these three divisions of the University do not pass through this office and are hence not included in these figures. Applications for admission as "special" students are likewise excluded.

A. Applications and admissions from secondary schools:

	1934		*1935*		*1936*		*1937*		*1938*	
	Applied	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*
Arts and Sciences	1021	456	1058	497	1072	510	1312	533	1221	454*
Agriculture	564	299	571	335	638	341	669	396	802	404
Home Economics	318	93	360	97	341	103	424	145	418	122
Hotel Administration	93	54	111	48	134	67	155	82	183	76
Architecture	39	21	23	13	29	19	43	20	55	33
Engineering	270	184	294	199	312	210	364	217	754	403*
Total	2305	1107	2417	1189	2526	1250	2967	1393	3433	1492

*In September 1938 admission to candidacy for the degree Bachelor of Chemistry in the College of Arts and Sciences was discontinued, and students wishing to enter these courses were admitted as candidates for the degree of Bacheior of Chemical Engineering in the College of Engineering.

B. Applications and admissions by transfer from other higher institutions (not including transfers from one college to another within the University.)

	1934		*1935*		*1936*		*1937*		*1938*	
	Applied	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*	*Applied*	*Admitted*
Arts and Sciences	183	69	231	83	248	96	332	87	269	73
Agriculture	97	45	101	47	159	62	193	55	173	52
Home Economics	54	10	67	9	83	16	88	12	83	11
Hotel Administration	33	15	50	19	48	20	57	17	67	23
Veterinary	79	15	111	12	160	21	171	13	177	14
Architecture	17	12	18	9	18	11	19	8	21	14
Engineering	53	31	42	22	61	40	78	50	95	45
Total	516	197	620	201	777	266	938	242	885	232

	Total regular applications	*Total admitted*
1934	2821	1304
1935	3037	1390
1936	3303	1516
1937	3905	1635
1938	4318	1724

The steady increase in applications for admissions through the five-year period just concluded is seen at a glance through the tables above in contrast to the steady decrease in the period 1929–1933. (These tables do not include applications and admissions to the Law School, the Medical College, and the Graduate School, nor applications and admissions as "special" students.)

TABLE II

The students admitted direct from secondary schools (see I, A) divide as follows according to the method by which each one offered the greater part of his entrance credit:

	1934	*1935*	*1936*	*1937*	*1938*
Certificate	314	319	401	448	500
Regents	765	841	819	922	967
Examination	0	2	5	2	2
College Boards	28	27	25	21	23
	1107	1189	1250	1393	1492

Many of the students offered credit by more than one of the four methods. The following shows the number offering credit by any one of the four:

	1934	*1935*	*1936*	*1937*	*1938*
Students presenting credit by Certificate	704	806	947	1126	1241
Students presenting credit by Regents	793	860	850	966	990

Students presenting credit by Examination.	61	74	88	100	43
Students presenting credit by College Boards.	60	49	65	47	50
Schools using Certificate Privilege	212	232	289	304	319

TABLE III

ENTRANCE EXAMINATIONS

For the five-year period September 1934–September 1938 the University continued to use the September examinations furnished by the College Entrance Examination Board. The answer papers were read and graded by members of the Cornell University Faculty.

	1934	*1935*	*1936*	*1937*	*1938*
Total new applicants trying examinations	129	125	123	129	96
Applicants completing requirements by examination	73	74	88	79	35
Applicants trying examinations, but failing to complete requirements thereby	56	51	35	21	20

The proportion of passing grades (60 or above), for all subjects, to the total number of grades reported:

1934	*1935*	*1936*	*1937*	*1938*
52%	47%	48%	58%	48%

The decrease in the proportion of students who fined it necessary to try the September examinations is an encouraging sign, as it was in the five-year period preceding.

TABLE IV

Freshmen admitted from private schools in the United States:

	1934	*1935*	*1936*	*1937*	*1938*
From schools in New York State	76	76	74	66	85
From schools in other Middle States	33	59	54	77	85
From schools in New England States	44	28	53	68	69
From schools in other States	47	41	40	60	59
Total	200	204	221	271	298

The causes of the continuous drop in the number of applications in the period 1929–1933 were undoubtedly economic. The causes of the rise in 1934–1938 were also probably in the main economic; but in this connection I must repeat what I have often said of the good work done by devoted Cornell alumni, both as individuals and through their organizations, in directing a constant and increasing current of sound human material towards their University.

What may be the trend in the next five-year period no one can predict. In 1928 there were no solemn voices warning us that applications would steadily fall for five years; nor did I hear anyone informing us in 1933 that applications would steadily increase for the next five. One hears nowadays of a falling birth-rate manifested by thousands of empty desks in the elementary schools. Will this decrease in the youthful portion of the population in time extend itself upward into the colleges and universities of the country? Or will a larger proportion of the youth go on into the higher institutions and so prevent a decrease which otherwise appears inevitable? These questions may not be answered in the next five years; but they probably will be in the next decade.

E. F. Bradford,

Director of Admissions.

APPENDIX XVI

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my ninth annual report as Registrar of the University. The report covers the academic year 1938–39 including the Summer Session of 1938 and, for convenience, work between the end of the second term 1937–38 and July 1, 1938 but excluding work between the end of the second term 1938–39 and July 1, 1939.

TABLE I

THE YEAR 1938–39

	Days in Session	*Sun-days*	*Holi-days*	*Vaca-tion*	*Total*
Summer Vacation, June 21–July 4				14	14
Summer Session, July 5–August 12	34	5			39
Summer Vacation, August 13–September 25				44	44
First Term, September 26–February 8	102	16			118
Thanksgiving Vacation, Nov. 24–Nov. 27				4	4
Christmas Vacation, Dec. 22–Jan. 4				14	14
Midyear Recess, February 9				1	1
Spring Vacation, April 1–April 9				8½	8½
Spring Day, May 27			1		1
Second Term, Feb. 10–June 19	103½	17			120½

TABLE II

ATTENDANCE FOR THE YEAR 1938–39

		Graduate	Class 1943	Class 1942	Class 1941	Class 1940	Class 1939	2 Yr. Spec. Agr.	Special	Total	Duplicates	Net Total
Agriculture	Men		2	346	278	281	229	261	26	1423		
	Women		1	66	49	31	36	3	7	193		
	Total		3	412	327	312	265	264	33	1616		
Architecture	Men		28	20	15	20	29		1	113		
	Women		8	7	1	5	2			23		
	Total		36	27	16	25	31		1	136		
Arts	Men		1	279	341	331	300		11	1263		
	Women			179	149	142	150		3	623		
	Total		1	458	490	473	450		14	1886		
Engineering	Men		103	373	265	224	172		2	1139		
	Women		2	1	2		1			6		
	Total		105	374	267	224	173		2	1145		
Graduate School	Men	844								844		
	Women	206								206		
	Total	1050								1050		
Home Economics	Men								1	1		
	Women			122	140	105	97		14	478		
	Total			122	140	105	97		15	479		
Law	Men				72	54	50			176		
	Women				1	2	7			10		
	Total				73	56	57			186		
Medicine	Men			74	65	64	58		2	263		
	Women			6	6	8	5			25		
	Total			80	71	72	63		2	288		
Veterinary	Men			41	38	38	37			154		
	Women			2		4	3			9		
	Total			43	38	42	40			163		
Hotel	Men			77	83	59	53		1	273		
	Women			5	7	2	3		1	18		
	Total			82	90	61	56		2	291		
Total	Men	844	134	1210	1157	1071	928	261	44	5649	173	5476
	Women	206	11	388	355	299	304	3	25	1591	12	1579
	Total	1050	145	1598	1512	1370	1232	264	69	7240	185	7055

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DISTRIBUTION OF DUPLICATES*

	Men	*Women*	*Total*
Agriculture—Engineering	2		2
Agriculture—Veterinary	1		1
Architecture—Engineering	1		1
Arts—Agriculture	1		1
Arts—Architecture	1	1	2
Arts—Engineering	92	1	93
Arts—Hotel	2		2
Arts—Law	10		10
Arts-Medicine	3		3
Graduate School—Agriculture	12	1	13
Graduate School—Architecture	2		2
Graduate School—Arts	13	8	21
Graduate School—Engineering	3		3
Graduate School—Graduate School	62	30	92
Graduate School—Home Economics		1	1
Graduate School—Summer Session	383	277	660
Graduate (Personal Direction) Graduate (Candidate for Degree Only)	1		1
Graduate School (Personal Direction) Graduate School	75	12	87
Graduate School (Personal Direction) Graduate School in Summer Session	9	2	11
Summer Session—Agriculture	48	5	53
Summer Session—Architecture	14	2	16
Summer Session—Arts	97	33	130
Summer Session—Engineering	130		130
Summer Session—Graduate (Personal Direction)	1		1
Summer Session—Home Economics		14	14
Summer Session—Hotel	5	1	6
Summer Session—Veterinary	1		1
Total	969	388	1357

TABLE III

ATTENDANCE AT SUMMER SESSIONS, ETC., 1938–39

	Men	*Women*	*Total*
Graduate, Personal Direction	110	25	135
Graduate, 1938 Summer Session	380	269	649
Summer Session, 1938	1188	869	2057
Short Winter Course, Agriculture, 1938–39	119	7	126
Extramural Course	28	57	85
Candidates for Degree Only	27	8	35

TABLE IV

MATRICULATES

	Men	*Women*	*Total*
Graduate	322	172	494
Advanced Standing	203	51	254
First Year	1185	375	1560
Special Students	16	14	30
2 Year Special Agriculture	128	2	130
Medicine (New York City)	68	7	75
Summer Session 1938	409	499	908
Summer Graduate (Personal Direction)	2		2
Duplicates	96	6	102
Net Totals	2237	1114	3351

* To accompany the table showing attendance for the year 1938–39.

TABLE V

DEGREES

SEPTEMBER 1938; FEBRUARY 1939; JUNE 1939

	Men	*Women*	*Total*
A.B.	240	144	384
B.Chem.	20		20
B.S. (a)*	223	31	254
B.S. (b)		87	87
B.S. (c)	46	3	49
D.V.M.	37	3	40
B.Arch.	17		17
B.Fine Arts		1	1
B.L.A.	7		7
C.E.	38		38
M.E.	43		43
E.E.	24		24
B.S. in A.E.	35		35
Chem. Engr.	8		8
A.M.	31	50	81
A.M. in Education	4		4
M.S.	44	25	69
M.S. in Agriculture	16	1	17
M.S. in Education	19	9	28
M.S. in Engineering	22		22
M.Chem. Engr.	2		2
M.C.E.	11		11
M.M.E.	3		3
M.E.E.	1		1
M.Arch.	1		1
M.L.A.	1		1
LL.B.	46	7	53
Ph.D.	111	19	130
M.D.	58	5	63
Total	1108	385	1493

TABLE VI

TABLE SHOWING BY YEARS THE NUMBER AND KINDS OF DEGREES GRANTED BY CORNELL UNIVERSITY

	1935–1939 First Degrees						
	Before 1935	*1935*	*1936*	*1937*	*1938*	*1939*	*Total*
Bachelors of Arts	9614	378	388	347	362	384	11473
Bachelors of Chemistry	647	30	24	23	21	20	765
Bachelors of Literature	52						52
Bachelors of Philosophy	484						484
Bachelors of Letters	264						264
Bachelors of Science	3712						3712
Bachelors of Sci. in Chemistry	9						9
Bachelors of Sci. in Nat. Hist	4						4
Bachelors of Sci. in Agriculture	357						357
Bachelors of Sci. in Architecture	123						123
Bachelors of Architecture	639	20	25	19	16	17	736
Bachelors of Agriculture	30						30
Bachelors of the Sci. of Agr.	127						127
Bachelors of Veterinary Science	4						4
Doctors of Veterinary Medicine	867	56	23	35	31	40	1052
Graduate in Pharmacy	1						1
Pharmaceutical Chemists	2						2
Bachelors of Civil Engineering	161						161

* a, means Agriculture; b, Home Economics; c, Hotel Administration

Civil Engineers	2822	48	44	30	22	38	3004
Bachelors of Mech. Engineering	57						57
Mechanical Engineers	5991	56	56	41	46	43	6233
Bachelors of Laws	2133	35	51	42	48	53	2362
Doctors of Medicine	1811	64	64	71	66	63	2139
Forest Engineers	17						17
Bachelors of Fine Arts	19	3	2	1	2	1	28
Electrical Engineers	654	33	30	21	19	24	781
Bachelors of Landscape Architecture	56	1	4	5	6	7	79
Bachelors of Science (College of Agr.)	1413	202	202	177	237	254	2485
Bachelors of Science (College of Home Economics)	711	109	111	106	89	87	1213
Bachelors of Science (Hotel Mgt.)	231	35	29	30	43	49	417
Chemical Engineers	8	1	7	7	14	8	45
Bachelors of Science in Admin. Eng'g	26	43	42	53	55	35	254
Total First Degrees	33046	1114	1102	1008	1077	1123	38470
War Alumni	309			1	2		312

Advanced Degrees

	Before 1935	*1935*	*1936*	*1937*	*1938*	*1939*	*Total*
Architects	1						1
Civil Engineers	20						20
Mechanical Engineers	1						1
Masters of Arts	1479	48	72	74	65	81	1819
Masters of Philosophy	10						10
Masters of Letters	9						9
Masters of Science	838	49	70	82	76	69	1184
Masters of Sci. in Agriculture	355	9	13	11	15	17	420
Masters of Sci. in Architecture	19						19
Masters of Chemical Engineering						2	2
Masters of Civil Engineering	216	11	16	16	16	11	286
Masters of Mechanical Engineering	259	2	3	2	4	3	273
Masters of Electrical Engineering	50			2	1	1	54
Masters of Laws	61		1		1		63
Masters of Landscape Design	21						21
Masters in Forestry	77	1	1	3	4		86
Masters of Architecture	36	1	3		1	1	42
Masters of Landscape Architecture	6				1	1	8
Masters of Fine Arts	4		1	1	1		7
Masters of Chemistry	15		3	3	2		23
Masters of Arts in Education	27	10	10	18	7	4	76
Masters of Science in Education	28	5	13	24	33	28	131
Masters of Science in Engineering		7	7	10	11	22	57
Doctors of Veterinary Medicine	1						1
Doctors of Science	20						20
Doctors of Philosophy	2001	136	124	124	131	130	2646
Doctors of Laws (Honorary)	2						2
Doctors of the Science of Law	6			1			7
Total Advanced Degrees	5562	279	337	371	369	370	7288
Grand Total	38608	1393	1439	1379	1446	1493	45758

For previous years see President's Report for 1932–33.

TABLE VII

TABLE SHOWING THE NUMBER OF STUDENTS IN EACH COURSE SINCE 1933–34

	1934–35	*1935–36*	*1936–37*	*1937–38*	*1938–39*
Agriculture	1172	1257	1358	1513	1616
Architecture	161	151	135	129	136
Arts	1823	1825	1883	1980	1886
Engineering	827	812	938	1025	1045
Graduates	753	816	935	955	1050
Home Economics	648	441	417	449	479
Hotel		209	254	271	291
Law	144	162	156	149	186
Medicine	288	290	299	289	288
Veterinary	157	131	151	154	163
Total excluding Duplicates	5910	6019	6341	6684	7055
Extramural Course		165	111	99	85
Graduate Work in Summer	647	723	828	836	784
Summer School in Agriculture	916				
Summer Session	1067	1774	1924	1996	2057
Winter Agriculture	115	128	123	96	126
Candidates for Degrees Only					35

E. F. BRADFORD,
Registrar.

APPENDIX XVII

REPORT OF THE UNIVERSITY PLACEMENT BUREAU

To the President of the University:

SIR: I have the honor to present, for the University Committee on Placement, the report of the University Placement Bureau for the year 1938–39.

The data in Table I show that on the whole the graduates of the class of 1939 have secured more jobs—in one way or another—than did the class of 1938 at the time of graduation. The 1939 placements, however, are still fewer than in 1937. The improvement over 1938 is especially noticeable in the case of engineering students. Noteworthy also is the very large percentage (50%+) of students in Arts and Sciences who plan to continue their studies. This fact suggests, at least, that the College of Arts and Sciences is regarded by perhaps a majority of its students as a pre-professional school; for they plan to continue their formal education principally in the fields of teaching, law, medicine, and business.

TABLE I

EMPLOYMENT OF 1939 GRADUATES

PLACEMENTS REPORTED

TO THE BUREAU AND THE SEVERAL COLLEGES AND DEPARTMENTS

AS OF JUNE 25, 1939

College	*Positions Reported June 25**	*Continuing Studies*	*Total Class*	*Percent Unemployed or Not Reporting as of June 25** 1939*	*1938*	*1937*
Agriculture:						
Men	107	23	185	30%	33%	24%
Women	1	3	25	84	82	86
Architecture:	7	0	22	69	50	95
Arts & Sciences:						
Men	37	119	198	36	37	33
Women	16	25	99	58	59	61
B.Chem	0	13	15	23	29	10
Engineering:						
B.S. in A.E.	20	2	33	39	49	18
C.E.	17	0	27	38	75	33
E.E.	17	0	25	32	44	19
M.E.	24	4	40	30	49	5
Chem. Engr.	8	0	8	0	8	14
Home Economics:	45	1	76	39	40	30
Hotel:	32	0	44	27	9	4
Veterinary:	29		40	27	23	28
Total	363	190	837	38%	41%	33%

Tables II, III, and IV show the extent to which the University Placement Bureau in Ithaca and the Employment Service of the Cornell Club of New York are concerned with alumni. The number of alumni placements is about the same as in the previous year; but there were increases in the number of calls for men and the number of active and inactive registrants, indicating perhaps an increased

*Only those who have actually accepted positions at the time this report was prepared are included as employed.

**Many of those not yet definitely employed either have good possibilities of employment in the near future or do not wish employment until some later date.

range of activity on the part of the several branches of the placement service. It should be noted, also, that during the past year the Bureau circulated among hundreds of alumni sixteen issues of the *Job Bulletin*.

TABLE II

ALUMNI REGISTRATION

	1939	*1938*	*1937*
Active registrants	515	370	481
Inactive registrants	1171	1077	869
Records and references of former seniors	1127	854	608
Total registrations on file	2813	2301	1959

TABLE III

ALUMNI PLACEMENT

	1939	*1938*	*1937*
Alumni placed in permanent positions	25	15	19
Company calls for alumni	356	211	260

TABLE IV

EMPLOYMENT SERVICE OF THE CORNELL CLUB OF NEW YORK

	1939	*1938*	*1937*
Number of placements (approximately)	50	60	90
Number of calls for men (approximately)	250	240	350
Number of active registrants	460	480	440
Number of inactive registrants	1350	1170	950

In the matter of summer jobs, the Bureau continued to receive a moderate number of calls and to make a moderate number of placements.

TABLE V

SUMMER PLACEMENT

	1939	*1938*	*1937*
Registrations:			
for camp work	145	132	92
for other work	258	212	187
Placements reported:	26	14	18
Calls:			
for camp	21	20	25
for other (except sales)	10	12	42
for sales	12	11	11

On July 1, 1938 the men's part-time employment service came under the jurisdiction of the University Committee on Placement and was made part of the Bureau. The number of jobs filled is shown in Table VI. It is to be expected that hereafter the Bureau will be able to provide statistics regarding students' earnings and kinds of jobs filled. Such data will be valuable to University officers and prospective self-supporting students who are concerned with student employment and earnings. It is to be expected, also, that the possibilities of men's part-time employment will be further and more nearly completely developed within both the University and the general community. For this purpose closer cooperation between the Bureau and the many administrative and academic departments, residents of the community, and other potential employers is essential.

TABLE VI

PART-TIME AND TEMPORARY EMPLOYMENT

	1939
Student part-time jobs—men* (exclusive of N.Y.A.)	755
Non-Cornellians (Grad. wives, etc. available for work on campus) placed in temporary work	7
Local Cornell graduates placed in temporary work	3
Total temporary or part-time placements	765

The most important aspect of student part-time work is the N.Y.A. program. Hundreds of students—graduate and undergraduate—are aided annually; the students get valuable experience in many instances; and valuable work is done for the University. Details are shown in Table VII.

TABLE VII

SUMMARY OF MONTHLY N.Y.A. PAYROLLS

1938–39

Month	*No. of Students Aided*	*Amount Earned*
Oct.	467	$6,263.00
Nov.	495	7,367.18
Dec.	490	7,120.89
Jan.	499	7,131.99
Feb.	504	7,293.05
Mar.	505	7,402.58
Apr.	502	7,298.46
May	498	7,326.60
June	440	6,059.08
Total Number of Students Aided	605	
Total Earnings		$63,087.80
Average yearly earnings per student		$ 104.21

A number of Cornell Clubs continue to cooperate with the Bureau by the appointment, in each case, of a member who serves as the Bureau's representative and liaison officer. We are grateful to the following men and clubs for their assistance: I. E. Asen, Cornell Club of Essex County, N. J.; Chas. A. Carpenter, Cornell Club of Western Pennsylvania; Chas. L. Monroe, Cornell Club of Western Pennsylvania; Thomas Dransfield, III, Cornell Club of Minneapolis, Minn.; Edmund H. Eitel, Cornell Club of Chicago, Ill.; John Holt, Cornell Club of Cleveland, Ohio; Robert C. Hosmer, Cornell Club of Syracuse, N. Y.; Wm. J. Thorne, Cornell Club of Syracuse, N. Y.; Herbert R. Johnston, Cornell Club of Buffalo, N. Y.; Norman D. Kenney, Cornell Club of Maryland; Harold Merrill, Cornell Club of Washington, D. C.; Francis A. Niccolls, Cornell Club of Boston, Mass.; Robert B. Patch, Cornell Club of Philadelphia, Pa.; Giles Smith, Cornell Club of New England; John W. Way, Cornell Club of Binghamton, N. Y.; George A. West, Cornell Club of Rochester, N. Y.

In addition to the placement work indicated by the foregoing data, the Bureau has been engaged in vocational guidance activities. During the first term, for a period of six weeks, two groups, each consisting of twenty men-students in Arts and Sciences, met with the Director once a week to discuss problems and procedures in seeking employment. In addition, Mr. H. L. Davis, formerly of the New York Telephone Company, delivered three lectures—open to all students—on the same subject. Sixty-five students—most of them seniors—filled out the Strong Vocal Interest Blanks. The results of these were used by the Chairman or

*Part-time placements of students by the Men's Employment Office in Barnes Hall are included for the first time.

the Director in consultation with the students. An increasing number of students have, in the last few years, been coming to the Chairman or to the Bureau for vocational advice. Consequently, not only has all available assistance been given them, but many new occupational pamphlets have been acquired for their use, and a card catalog of all vocational literature in the University has been prepared. More can be done in the matter of vocational guidance. There are men and women on the several faculties who can give the necessary advice and assistance in respect to its further development. Educational guidance, though of course associated with vocational, has been deliberately omitted here, since the former is a function principally of the several colleges. Vocational guidance can be a Bureau function of increasing importance; so that the Bureau might quite naturally evolve into a combined employment and vocational guidance bureau, undertaking to advise students as to occupations and then to place them as satisfactorily as possible. Naturally, too much should not be expected of psychological instruments in the matter of vocational guidance. But guidance can be of some significance when psychological test results are placed in the hands of a qualified person, considered in conjunction with other necessary information, and supplemented by the student's own investigation of occupations. Our students might thus be spared the expense, disappointment, and distress as a result of consulting the commercial counselors, so-called, who have their eyes on the big chance.

June 30, 1939 marks the end of the life of the University Committee on Placement, appointed in December, 1932. This University Committee was created to organize the University Placement Bureau, to supervise the work of that Bureau, and to direct its development. It now appears to the President and the members of the Committee that the Bureau's organization has proceeded far enough, the direction of its work has been clearly enough indicated, and its progress has been sufficient to warrant withdrawal of the Committee's administrative direction and supervision. The Committee's contribution having been made, the Bureau will be in charge of Mr. H. H. Williams, acting as head. The Committee originally was made up of the following members: Professor R. J. Bangs, Mr. F. M. Coffin, Professor C. L. Durham, Dean R. Louise Fitch, Miss Ellen Fitchen, Professor A. W. Gibson, Dr. M. L. Hulse, Professor J. W. MacDonald, and Dean George Young, and F. S. Freeman, Chairman. At the time of its discharge, the following changes had taken place: Professor J. R. Moynihan for Professor Bangs; Miss Esther H. Stocks for Miss Fitchen; Professor J. N. Tilton for Dean Young.

The Placement Bureau was established to strengthen the University's facilities for senior and alumni placement. This the Committee has sought to achieve, but not by making the Bureau a substitute for the activities of the placement services of the several colleges and of individual professors. Instead, the Bureau is functioning as a coordinating office and clearing house; although it has, to be sure, been the principal placement agency for the College of Arts and Sciences. The Bureau seeks to increase its effectiveness by working in close cooperation with the colleges, departments, and individual professors. For maximum effectiveness, it is necessary that the work and facilities of the Bureau be kept before the attention of students, teachers, and administrators of the University. The colleges, departments, and professors, on the other hand, could strengthen this work by making a practice of regularly reporting placements, vacancies, and other information to the Bureau. The Bureau could thus more confidently and faithfully represent what Cornell is doing for her students in the matter of placements. But this is not only a matter of accurate statistics. The justification of the Bureau lies in its usefulness to the various divisions of the University, their students, and alumni. The Bureau's usefulness, at the same time, will depend in part upon its cooperation and integration with the several colleges and other University divisions concerned with student life. The policies of the University Committee on Placement were directed to this end, without necessarily contemplating the absorption of any other member of the larger whole.

FRANK S. FREEMAN, *Chairman*,
University Committee on Placement.

APPENDIX XVIII

REPORT OF THE DIRECTOR OF PHYSICAL EDUCATION AND ATHLETICS

To the President of the University:

SIR: It is again my pleasure to tender the annual report of the Department of Physical Education and Athletics.

There were several major changes and developments this year which are of prime importance to the department. The most notable change came about when the Board of Athletic Policy, as established in 1935, was superseded, upon my recommendation to you, by trustee and faculty action, by a Council on Physical Education and Athletics. This Council is made up of the Director of Athletics, who is chairman, ex officio; the President and the Comptroller of the University, ex officio; three members of the faculty, two alumni trustees, and two undergraduates. They are now responsible for the policies and administration of the program of intercollegiate athletics, intramural sports, and physical education and recreation in Cornell University.

As a sub-committee of the Council, there was designated a Committee on Eligibility consisting of the Chairman, the President, and the three faculty members on the Council. Theirs is the task of determining all questions of athletic eligibility, as well as to pass on all athletic schedules and incidental leaves of absence. This has relieved the Faculty Committee on Student Activities of these responsibilities and has done much to expedite the handling of such matters in the administration of this department.

Since its organization in January, this Council has been most active in taking steps to establish a long term policy of administration and the broadening of the recreational program. Their first step was to ratify Cornell's adoption of the Three Presidents' Agreement of Harvard, Yale, and Princeton. This document defines clearly and thoroughly standards of athletic eligibility and brings Cornell into line with practices as followed at these leading institutions.

The efforts of this department have long been directed toward the development of those sports which are of particular value as a means of recreation in later life. One such sport is golf, to which great impetus was given with the authorization of the construction of a nine-hole golf course adjacent to the University. This, of course, is expected to be but the first step in the creation of completely adequate golf facilities. Since the University, itself, was unable to finance such an undertaking, rather than have it delayed, the Council authorized appropriation of the necessary funds from the estimated current profits of the Athletic Division. This, of course, will delay repayment of the outstanding indebtedness but it was the only alternative in proceeding with a development that will prove beneficial to the entire University community.

Again and again, it has been emphasized that Cornell's indoor recreational facilities are woefully inadequate and actually disgraceful. This is increasingly evident each succeeding year following the normal efforts extended to increase undergraduate participation in recreational activities. At the same time, by having compulsory physical education for women, the situation is intensified with the increase in University registration. Sage gymnasium and the swimming pool are of little value in this day and age, necessitating allocating to the women times for the use of the Old Armory. This, in turn, limits men's activities which are already beyond the capacity of this latter building. The Drill Hall, although quite helpful, does not afford a solution since it cannot be properly adapted to this use, particularly because of limited time available therein.

Of course this is no new story and is a topic often discussed, but now at long last concerted action has been taken in the matter. A study of the needs of this department was made by a trustee-faculty committee which considered as part of its study the needs mentioned above. Detailed studies followed, culminating in the drafting of complete plans for a proposed set of indoor sports buildings for

both men and women. Preparation of models of such buildings and development of a suitable accompanying brochure brings us now to the point where it can be turned over to Provost Peters upon whom will fall the burden, in conjunction with the trustee committee for fund raising, of making it financially possible to undertake this development.

In the men's and women's physical education divisions, no particular changes were wrought this year and until such a time as the above-mentioned facilities may be available, very little change can be considered.

The intramural program is progressing nicely and intense interest and large participation are quite evident. A broad sports program is provided whereby every undergraduate can find a suitable outlet for his capabilities and energies.

It is in the Athletic Division that progress is most apparent. For the third successive year there will be a sizable profit, again primarily due to the good fortunes of an outstanding football team. As indicated earlier in this report, the greater part of this profit has been turned over to the University to be used both for expanding golf facilities and in preparing preliminary plans and relevant material for the indoor sports buildings.

Largely as a result of changes made in personnel these past few years, all teams are now well coached and properly conditioned. This is reflected in better performances in all branches of sport, this being particularly evident with championship football, baseball, and track teams, as well as with the marked improvement in basketball and crew.

It must be realized that these now apparent changes have not been just temporary expedients, nor are they newly conceived ideas. They reflect the final development of a program which has been for four years in the embryonic stages. There are but few remaining major changes to be considered, such as the realization of these proper indoor facilities and the provision of more extensive instruction in physical education. Such developments can all come in the normal order of things.

It may, then, be expected that with strict, honest, and sincere adherence to the principles now established, this department will continue to operate to an even better degree and at all times in the best interests of the University.

JAMES LYNAH,
Director of Physical Education and Athletics.

APPENDIX XIX

REPORT OF THE PROFESSOR OF HYGIENE

To the President of the University:

SIR: I have the honor to submit herewith the report of the Department of Hygiene and Preventive Medicine for the year 1938–39.

STUDENT ILLNESSES

The student body enjoyed comparative freedom from any widespread epidemic throughout the year. The "atypical pneumonia" of which we reported 60 cases last year, was studied further by our staff, diagnosed as a new disease in this area, and designated as "acute interstitial pneumonitis." Thirty-nine more cases of this disease occurred this year bringing the total for the past two years to 99 cases. A study of the first 86 of these cases was reported in the May 13, 1939 issue of the Journal of the American Medical Association.

In addition to the 39 cases of pneumonitis there also occurred 32 cases of infectious mononucleosis, 6 cases of chickenpox, 1 case of measles, and one case of German measles, making a total of 79 communicable-disease cases. Students made 21,451 calls at the office of the men's medical adviser, 5,459 calls at the women's office. There were 214 operations performed at the Infirmary, 69 of these being

minor surgery, 46 being treatments of fractures and dislocations, 33 appendectomies, and 30 tonsillectomies. One death occurred at the Infirmary as the result of a ruptured appendix and peritonitis.

MENTAL HYGIENE

The work of our mental hygienists, Dr. Douglas Darling and Dr. Ruth Stelle is summarized in the following table:

	Men	*Women*
No. of psychogenic cases seen	106	50
No. of mental hygiene consultations	499	132
No. of patients sent home or to the hospital for psychiatric care	12	3
Definite psychoses diagnosed	8	2

The nature of these psychogenic problems in the 106 men has been summarized by Dr. Darling (using Dr. Robert Fleming's classification) as follows:

1.	Problems of organic disease	5
2.	Economic problems	1
3.	Academic problems	6
4.	Problems of inter-personality relationships	30
	(A) Family	6
	(B) Sexual	14
	(C) Social & racial	10
5.	Problems of internal personality organization	56
	(A) Psychoneurotic structure	25
	(B) Cyclothymic structure	5
	(C) Pre-Schizoid personality structure	3
	(D) Schizoid personality structure	1
	(E) Schizophrenia	8
	(F) Psychopathic personality	1
	(G) Atypical structure	13
6.	No or unknown psychiatric problem	8

Dr. Stelle made a special study of 38 women students placed on academic probation during the year. Among the 38 there were four who had definite psychogenic problems.

There were 110 students registered in Mental Hygiene during the year.

SOCIAL HYGIENE

The freshman course in hygiene included two lectures on the personal aspects of sex hygiene, one lecture on the community aspects. The Wasserman test was offered to those who wanted it, and a large number of these tests was done. Departmental records show, however, no cases of syphilis, 5 cases of gonorrheal urethritis.

COMBATING TUBERCULOSIS

In the course of the year our staff made 1982 chest radiographs, and did 532 tuberculin tests. Among the men 26% of the tuberculin tests were positive, among the women 28%. All freshmen were either tuberculin tested or radiographed or both.

The results of this intensive case-finding study are summarized as follows:

Tuberculosis of the lungs (new cases found)

	Men	*Women*
Minimal (inactive)	5	1
Moderately advanced (inactive)	1	0
Far advanced (active)	1	0
Suspected tuberculosis (under observation)	60	26

The inactive cases were all permitted to continue their work in the university under Dr. Showacre's or Dr. Evans' special supervision. The far-advanced active case was a Senior who as an entering student had had an apparently negative

tuberculin test. His condition required that he give up his work and return home to begin treatment at once.

Thirty-five students who were tuberculin positive and could not afford the usual cost of chest radiograph availed themselves of the Mayer Fund to have their radiograph made.

THE CARDIAC PROGRAM

In the examining of entering students and Seniors all cardiac cases were referred to Dr. Cuykendall who (1) took a careful cardiac history, (2) studied the chest radiograph, (3) made a fluoroscopic study of the heart in the standard positions, (4) made a cardiac physical examination, (5) in selected cases took an electrocardiogram and recommended additional tests such as blood count and a blood sedimentation rate.

As a result of these studies 139 new cardiac cases were found this year. The cumulative figures so far available are as follows:

	Men	*Women*	*Total*
Total number of students	4,991	1,498	6,489
Percentage with rheumatic type of heart disease	0.7	2.0	1.2
Percentage with hypertension (above 135/90 mm)	0.5	0.5	0.5
Percentage with congenital defects	0.2	0.4	0.2

All of these cases are under supervision, and most of them are under definite restrictions as regards exercise.

THE CARE OF ATHLETES

Every candidate for an athletic team was examined by a member of our staff before participation in practice was permitted. Injuries sustained in athletics were all seen by our staff members. The following table reveals the size of this problem.

	Total number examined	*Number rejected*	*Number injured*
Baseball	105		11
Basketball	115		10
Boxing	87		6
Crew	317		6
Fencing	84		
Football	304		132
Golf	22		
Hockey	47		2
Lacrosse	59		11
Polo	92	1	4
Soccer	94	1	17
Swimming	70		1
Tennis	46		
Track	277	1	12
Wrestling	126		19
Intramural sports, rugby, & winter sports	71		7
Totals	1,916	3	238

In caring for the athletic injuries Dr. Britton found it necessary to call in consultants outside the department as follows:

X-ray consultations in 13 cases
Dental consultations in 7 cases
Eye, ear, nose, and throat consultations in 10 cases
Surgical consultations in 11 cases

The year's record of athletic injuries gives ample evidence that football is still our most hazardous sport. Of the 14 cases of cerebral concussion, 11 occurred in football, 2 in touch-football, and 1 in hockey; of the 11 dislocations, 5 occurred in football, 3 in touch-football, 2 in rugby, 1 in baseball; of the 22 fractures, 9 occurred in football, 3 in wrestling, 2 each in baseball, lacrosse, and boxing, 1 each

in track, soccer, polo, and touch-football. A ruptured kidney occurred in touch-football and an internal hemorrhage in lacrosse.

THE SKIN CLINIC

Dr. Gould reported 2,567 special consultations regarding skin conditions and diseases. The commonest skin conditions found with their number were as follows:

Fungus infections	73 cases
Warts	63 "
Severe acne	46 "
Eczema	23 "
Seborrheic dermatitis	21 "
Acute dermatitis	14 "
Ivy poisoning	9 "

HEALTH EXAMINATIONS

Examinations, men:	
Class of 1942	1,105
Class of 1939	755
Entering Graduate Students and others	774
Examinations, women:	
Class of 1942	375
Class of 1939	253
Entering Graduate Students and others	187

FOLLOW-UP CONFERENCES

The medical records of all Sophomores and Juniors were reviewed during the second term, and all students with remediable defects still unremedied were called in for a follow-up conference.

THE INCIDENCE OF UNREMEDIED PHYSICAL DEFECTS (MEN)

	1,000 men Class of '39 as Freshmen	*755 men Class of '39 as Seniors*
Defects needing special care of surgeon	17	8
Defects needing ear, nose, and throat specialist	31	10
Defects needing special care of dentist	68	61
Defects needing special care of oculist	67	55
Defects needing special care of orthopedist	171	90
	354 (35.4%)	224 (29.6%)

THE INCIDENCE OF FAULTY HEALTH HABITS (MEN)

	Class of 1939 as Freshmen	*Class of 1939 as Seniors*
Faults in important health habits	362	303
Percentage of the class	36.2%	40%

It is again obvious that we have but little reason for complacency with regard to our college health program in view of the fact that over one-quarter of our Seniors still have remediable defects unremedied, and their health habits have become slightly worse rather than better during their four years in the University. It is to be hoped that means may be found for both strengthening our health-teaching program, and making the remedying of defects less difficult to finance.

CLASSROOM TEACHING

1551 registered for Hygiene I, all but 89 completing it successfully.
1479 registered for Hygiene II, all but 113 completing it successfully.

207 registered for elective courses, all but 20 completing them successfully.

The University requirement for Hygiene was waived because of work completed elsewhere in 32 cases.

The University requirement for Hygiene II was waived because of work completed elsewhere in 36 cases.

Comprehensive examinations:

Hygiene I—20 took the examination, 8 passed.
Hygiene II—59 took the examination, 17 passed.

For the coming year the Department is contemplating a reorganization of the subject matter of Hygiene I and II in such a way as to carry the personal hygiene throughout the Freshman year, giving that first emphasis, and stressing only those phases of community hygiene that are pertinent to or grow out of the personal hygiene. This will result in a ratio of perhaps 60% personal hygiene, 40% community hygiene instead of the present ratio of 50% each.

COOPERATIVE ACTIVITIES

Our staff during the past year contributed to the work of other departments of the University as follows:

1. Examined 96 women food handlers, 16 women employees, 129 men food handlers, 92 men employees, and gave 874 treatments to 314 injured employees.

2. Examined and immunized 148 students against typhoid fever for the Department of Military Science.

3. Rejected upon physical grounds 135 students from the basic course in Military Science.

4. Examined 38 students in contact with Nursery School children.

5. Made and interpreted 2,336 radiographs, 108 electrocardiographs, 8,494 clinical laboratory tests. (Next year for the first time we are planning to do basal metabolism tests at the Infirmary).

6. Supervised the isolation of 79 communicable disease cases at the Infirmary.

7. Reviewed the medical records of 775 students whose scholastic standing was in question, and sent notes to the college deans covering those cases where illness was a significant factor in accounting for poor work.

8. Vaccinated against smallpox 155 students preliminary to entrance in the University.

9. Supervised the sanitation of the swimming pools in the men's and women's gymnasiums.

10. Prescribed special exercises for 85 orthopedic cases who are required to take corrective physical education rather than the regularly prescribed course.

THE DEPARTMENT'S NEEDS

The Department is badly in need of new quarters where it can assemble its scattered activities under one roof and maintain hygienic standards of heating, lighting, and ventilating consistent with the theoretical standards set up in the teaching courses.

There is urgent need for a marked increase in the student loan fund in order that students with uncorrected physical defects will find it possible to finance the correction of these defects on favorable terms. It is hoped that this project will receive increasing support from the student body itself particularly through the Campus Chest Drive.

Continuation of the study of the whole field of student health service at Cornell and a complete survey of the facilities now provided are essential in view of the changes that have taken place in the last 20 years. The special Trustees Committee appointed for this purpose has started its work, and it is hoped that the study and recommendations will be well advanced or completed during 1939–40.

D. F. SMILEY, M.D.,
Professor of Hygiene and Medical Adviser.

APPENDIX XX

REPORT OF THE PROFESSOR OF MILITARY SCIENCE AND TACTICS

To the President of the University:

SIR: I have the honor to submit this report of the Department of Military Science and Tactics for the academic year 1938–39.

GENERAL

The Department of Military Science and Tactics at Cornell University comprises four units of the Reserve Officers' Training Corps: Infantry, Field Artillery, Ordnance, and Signal Corps. For each unit except Ordnance, there are two courses of four terms each: a Basic Course (required of all able-bodied male students of American citizenship) and an Advanced Course (elective for selected students who have completed the Basic Course). The Ordnance Unit has only an Advanced Course, open to students in engineering or chemistry who have completed the Basic Course in any other unit. Basic Course R.O.T.C. credit is given to members of the Cadet Band.

The Basic Course is taken usually in the freshman and sophomore years; the Advanced Course in the junior and senior years.

ENROLLMENT 1938-39

	Enrolled in Fall				*Completed in Spring*			
	Basic		*Advanced*		*Basic*		*Advanced*	
	1st Year	*2nd Year*	*1st Year*	*2nd Year*	*1st Year*	*2nd Year*	*1st Year*	*2nd Year*
Infantry	301	252	36	22	241	221	34	20
Field Artillery	637	433	70	53	505	341	67	45
Ordnance	—	—	22	16	—	—	19	18
Signal Corps	80	67	14	6	68	58	11	6
Band	75	54			70	36		
Total	1093	806	142	97	884	656	131	89
Total Enrolled								2138
Total Completed								1760

Advanced Course students are required to attend a summer camp of six weeks, normally between the junior and senior years. During the summer of 1938, Cornell students attended these camps as follows:

Infantry (Plattsburg Barracks, N. Y.)	22
Field Artillery (Madison Barracks, N. Y.)	57
Ordnance (Aberdeen Proving Ground, Md.)	21
Signal Corps (Fort Monmouth, N. J.)	11

Ninety commissions as Second Lieutenants, Reserve Corps (or Certificates of Eligibility for those under twenty-one years of age) were conferred on students completing the Advanced Course during the academic year 1938-39, distributed as follows:

Infantry	19
Field Artillery	49
Ordnance	16
Signal Corps	6

CURRICULA

During the summer of 1937, a new War Department directive for R.O.T.C. courses was received and was applied at once to the curricula of the various units at Cornell University. The changes involved some rearrangement of subjects

and the addition of several subjects not previously included. However, the ratios of theoretical to practical work remain approximately 2 to 1 for the Basic Courses and 4 to 1 for the Advanced Courses.

STANDARDS OF SCHOLARSHIP

It is the belief of this department that the standards of achievement in military subjects, in both Basic and Advanced Courses, have been raised during the year. This has come jointly from raised requirements on the part of the instructors and increased interest on the part of the students. The attitude of the students as a whole during attendance at Military Science is excellent. In order to increase the interest of Basic students, this department advocated last year the granting of academic credit for the Basic Course but further study has shown that the advantages would not offset the disadvantages at present. Varying amounts of academic credit are given to the Advanced Course in the various colleges. The amount of this credit is not satisfactory and acts as a strong deterrent to many students who would enroll in the Advanced Course if such credit were comparable to that granted in most other institutions. This prevents as large an enrollment in the Advanced Course as is desired since this enrollment is the ultimate objective of the R.O.T.C.

FACILITIES

In view of the large size of the Drill Hall, it may seem strange that facilities in that building are barely adequate. This applies particularly to space for classroom theoretical instruction. Only careful management and the full utilization of every room has prevented serious impairment of quality of instruction. A new classroom was made available by a rearrangement of the supply facilities. Otherwise request would have been necessary for the return to the Military Department of the top room of the southwest tower which has been in use for some years by the Athletic Department for fencing.

FACULTY AND STAFF

Changes in Army commissioned personnel at the beginning of the Fall term were:

Major Willis R. Slaughter, Ord., vice Major Merle H. Davis, Ord.
Major Frederic A. Metcalf, F.A., vice Captain J. L. Chamberlain, F.A.
Captain Robert W. Raynsford, S.C., vice Captain Walter B. Larew, S.C.

The total faculty and staff personnel consists of fourteen officers and twenty-eight enlisted men of the Army.

EXTRA-CURRICULAR ACTIVITIES

Rightly or wrongly, this department finds itself with a considerable number of its officers devoting much outside time to the active direction or guidance of activities entirely outside the department's program of instruction. These activities include the various military societies; the entire operation of a very colorful and well trained R.O.T.C. Varsity Band; the polo, rifle, and pistol teams; riding, rifle and pistol classes for women students; an annual horse show; and the Navy Day Ball, the proceeds from which provide for the entire cost of the upkeep and operation of the R.O.T.C. Varsity Band. These activities may be justified only in the light of general service to the University.

W. C. POTTER,

Colonel, Field Artillery, and Professor of Military Science and Tactics.

APPENDIX XXI

REPORT OF THE DIRECTOR OF EXTRAMURAL COURSES

To the President of the University:

SIR: I have the honor to submit a report on the work of the Extramural Courses for the year 1938-39.

Instructional centers for the Extramural Courses have been maintained during the past year at Biggs Memorial Hospital, Cortland, Rochester, Johnson City, and Ithaca.

The course offered at the Biggs Memorial Hospital for nurses in service marks a departure in class personnel from the work of the previous years. Heretofore classes have been made up very largely from public school teachers. There is developing, however, through the leadership of public health authorities an interest in off-campus courses for workers outside the public school systems, namely, public health nurses and others engaged in institutional health work. Inquiries which have been made concerning this service suggest possible new developments.

Professor L. A. Emerson, recently appointed Professor of Industrial Education, through Extramural Courses has established and maintained courses in Industrial and Technical Education, Educational and Vocational Guidance in the City of Rochester. The development of the work in Industrial Education during the last several Summer Sessions, through the encouragement and cooperation of the State Education Department, has stimulated an interest in Extramural work during the academic year. The extension of the work of the University in this field in the technical schools in their respective communities is essential to the development of this program. Theoretical courses can be offered on the campus during the Summer Session, but the practical articulation of courses with schools and industry must come at a time when public schools are in session and industry is active. Not only is the service valuable and important in and of itself but the fact that a representative of the University faculty is available to school authorities of a community each week makes it possible for him to inform anyone concerning the various offerings of the University.

The work in the Teaching of Nature Study and Elementary Science, as carried on under the direction of Professor E. Laurence Palmer continues to be in demand. This work is taken for the most part by teachers in the public schools. The teachers meeting as a class once each week bring their science teaching problems for analysis and solution. The work of the course is, in turn, pointed toward the actual procedures under way in the schools. The work of the course is thus practical to a pronounced degree. Field trips about the community in which the teacher is at work become not only increasingly meaningful to the teacher but give her at once material and experience which vitalize her work in the school. This work has been received so well that for the last two years practically all the teachers enrolled have, through the leadership of their instructors, spent a day or more on the campus, at the end of their course, visiting the various laboratories, the observatory, greenhouses, and the like. These trips are independent of the course and are taken at the personal expense of the members. They are valuable in and of themselves and at the same time offer an opportunity for these students from off the campus to gain first-hand knowledge of the University and its offerings.

The work of Extramural Courses continues in very modest proportions owing to the fact that only regular members of the regular staff are permitted to offer such courses for credit and that the fees from the students must sustain the cost of instruction.

CLYDE B. MOORE,
Director of the Extramural Courses.

APPENDIX XXII

REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I have the honor to submit the report of the Librarian of the University Library for the year ended June 30, 1939.

The most significant development of the year in the Cornell University Library was the inauguration of a new University Library Council. By action of the Board of Trustees on May 11, 1938 a new statute and new rules were adopted in accordance with which the old Library Council of four Faculty members, one Trustee member, the President, the Provost, and the University Librarian (eight members in all) was superseded by a somewhat larger council. The new body includes the President, one Trustee, the Librarian as Executive Secretary, and seven Faculty members. In the old Council the four Faculty members were elected by the University Faculty, two each to represent the sciences and the humanities. In the new Council the seven Faculty members are appointed by the Trustees upon nomination by the President and are to be selected, according to the statute, "to represent the library interests of the University as a whole, due regard being paid to the interests of science and letters, and to those of the technical and professional colleges and schools of the University."

The new Council held its first meeting on October 28, 1938, and entered at once upon a consideration of the present situation of the University's various book collections and the discussion of plans which might lead to greater usefulness and improved development on the entire Campus. To implement the work of the Council during the first year a special Library Council Assistant was appointed for one year. The new Assistant is Mr. William H. Hyde, a graduate of Oberlin College (B.A. 1925) and of the Columbia University School of Library Service (M.S. 1938), who had seen service in the library of the University Club in New York and in the Library of the College of the City of New York.

Under instructions of the Council careful surveys were made of the working of the present allotment scheme in force in the University Library, and the sums invested in all the various classes of books were tabulated by subjects or departments. A similar survey followed, tabulating the resources and subject developments in the college and departmental libraries outside the central library building. Finally inquiries were made to ascertain the extent to which books not fully catalogued existed in libraries outside the central building, and the first steps were taken toward organizing a systematic entry of all the University's book holdings in a Union Catalogue in the central building.

On the morning of Friday, March 17, 1939 the Library suffered from a flood in the new Southwest stack, caused by a freakish accident. During a period when the water in the building had been shut off while a new connection was made with the main pipe in the street, some unknown person turned on a faucet and left it on when no water flowed. When the flow was restored, a stopped drain caused the water to overflow during the night. It dripped through three decks and affected some three hundred books. Many were only slightly dampened and were returned to the shelves after they had been dried out. About one hundred needed repairs or rebinding. No books were totally ruined, although quite a few were permanently and irremediably stained by water. The Library's Petrarch and Wordsworth Collections were in the path of the flood, but they did not suffer greatly, since most of the rare and valuable items are kept in the Library's steel vault.

It is to be hoped that if another new wing is ever added to the present library building, the danger of damage by water will be as carefully guarded against as the danger of fire. Foresight and careful planning for library growth bring the problem of a new wing into the picture. Unless the University is fortunate enough to be provided with an entirely new and modern library building, a new wing will become practically necessary within a reasonable time. The crowded quarters of the Accessions, Classification, and Catalogue staff preclude all possibility of

really efficient staff work and normal staff expansion. And recent book accessions are already beginning to revive the book-space problems which some years ago harassed the administration and the users of the Library alike.

STAFF

Miss Frances L. Macoughtry, a cataloguer, resigned in September, 1938 and was replaced by Miss Elizabeth Lyon in October, 1938. Mrs. Ann Wood, the Librarian's Secretary, resigned in September 1938. Miss Rachel G. Harris was appointed to this position in May 1939.

ACCESSIONS

The total amount expended for books, periodicals, and binding during the year 1938-39 was $42,655, as against $40,610 for the preceding year. Miss Ingersoll, Head of the Accessions Division, reports that the total number of items added was 15,682 as against 15,163 last year. Of these 10,700 were for the general library. The remainder, 4,982, went to special collections. The number of items purchased was 6,228. The gifts amounted to 3,880.

	Items added	*Present extent*
General Library	9,696	693,127
Fiske Dante Collection	62	10,812
Fiske Petrarch Collection	34	4,560
Fiske Icelandic Collection	382	21,422
Wason Chinese Collection	3,204	27,643
Wordsworth Collection (Gift of Mr. Victor Emanuel)	20	2,622
Cornell University Theses	676	13,746
Philological Seminary	2	1,161
Sage School of Philosophy	1	1,002
German Seminary	—	759
French Seminary	—	24
Latin Seminary	—	326
American History Seminary	—	672
Manuscripts	3	966
Maps	6	1,178
Cornell University maps and plans	—	202
U. S. Coast Survey charts	—	950
U. S. Geological Survey atlases	—	216
U. S. Geological Survey, Topographical sheets	85	4,109
British Geological Survey maps	—	600
College of Architecture Library	420	3,180
Barnes Hall Library	86	3,848
Chemistry Library (Special)	48	484
Comstock Memorial Library (Entomology)	165	1,985
Economics Laboratory Collection	—	340
Forestry Library	—	1,821
Flower Veterinary Library	426	12,151
Goldwin Smith Hall Library	77	3,840
Gray Memorial Library (Electrical Engineering)	12	850
Hart Memorial Library (English Literature)	12	4,799
Kuichling Engineering Library	18	2,293
Rockefeller Hall Library (Physics)	—	1,190
Van Cleef Memorial Library (Medicine)	249	4,886
Total including manuscripts and maps	15,684	827,824

	Items added	*Present extent*
New York State College of Agriculture Library	6,153	110,329
New York State College of Home Economics Library	778	8,781
Law Library	3,619	89,470
Total on entire campus	26,234	1,036,404

CATALOGUE DIVISION

Miss Speed, Head of the Catalogue Division, reports the following figures:

Volumes and pamphlets catalogued	15,459
Maps catalogued	104
Manuscripts catalogued	8
Microfilms catalogued	21
Titles added to catalogue	8,993
Typewritten cards added	17,451
Printed cards added	16,776
Cards added to Library of Congress Depository Catalogue	62,114
Additions to cards	8,370
Volumes recatalogued	124
Cards corrected or dated	3,477

CLASSIFICATION AND SHELF DIVISION

The figures reported by Mr. De Grassi for this division are:

Books classified	11,740
Documents	81
Manuscripts	3
Maps	162
Microfilms	34
Theses	382
Books reclassified	12

PERIODICALS DIVISION

Miss Leland, Head of the Periodicals Division reports:

Periodicals currently received	
By subscription	1,310
By gift and exchange	1,357
Total	2,667
Number of volumes on open shelves	3,389
Current periodicals on open shelves	656
Issued for brief home use	519
Periodicals bound during the year (volumes)	3,050

During the year the method of keeping the periodical records was changed from an old-style card file to a visible index system.

The list of publications by officers and Faculty members, appended to the President's Report was edited, as usual, by Miss Leland.

READERS' DIVISION

Mr. Willis, Associate Librarian, who is in charge of the Reading Room and of Inter-Library loans, reports the following figures:

Days open to the public	339
Registered borrowers	
Faculty	1,259
Students	
College year	3,822
Summer Session	278

Recorded use	
Reading Room (number of books)	134,739
Seminary Rooms	2,907
Stalls	3,610
Laboratories and Departments	5,618
Home use (including 13,410 "Seven-day" books and 519 brief loans of periodicals)	57,343

INTER-LIBRARY LOANS

Lent to other libraries (volumes)	1,084
Borrowed from other libraries	394

The number of university, college, government, public, and industrial libraries that borrowed from Cornell was 184. Among them were:

Syracuse University	53	Johns Hopkins University	18
University of Rochester	51	University of Michigan	14
Hamilton College	43	Princeton University	14
Columbia University	36	Duke University	12
University of Buffalo	31	DuPont de Nemours Company	12
Pennsylvania State College	30	Grosvenor Library	11
Wells College	30	Ohio State University	10
Smith College	29	University of North Carolina	9
Eastman Kodak Company	28	Brown University	8
New York University	25	Harvard University	7

Cornell borrowed books from 50 other libraries. Among them were:

Library of Congress	91	University of Wisconsin	8
University of Rochester (Sibley Music Library 26)	52	Brown University	5
Columbia University	44	Syracuse University	5
Harvard College Library	31	Wells College	5
Yale University	31	American Museum of Natural History	4
Princeton University	17	Johns Hopkins University	4
University of Illinois	12	University of Pennsylvania	4
University of Chicago	8	University of Arizona	3

GIFTS

The names entered on our donors list number 822. It will be observed that the proportion of gifts among the accessions, 3,880 as against 6,228 purchased items is by no means insignificant. No one who uses the Cornell University Library and no one who has the Library's and the University's interests at heart, can fail to realize the debt of gratitude which is due to each and every personal donor, including many members of the Faculty of the University, and to the government agencies, domestic and foreign, to the learned societies, foundations, corporations and industrial plants, and particularly to the publishers or editors of periodicals, who with unfailing liberality have enriched our resources and aided students and mature scholars alike.

An unusual event in the history of the Library was the gift from the French Government, through its Minister of Foreign Affairs, of approximately 300 volumes of French books (literature, arts, history, and science) amounting in value to 10,000 francs.

A generous subsidy of $3,000 from the Rockefeller Foundation, extending over several years, is intended to strengthen our unusual collection of books about China in European languages, donated and endowed by the late Charles W. Wason. The Rockefeller grant is to be used for the purchase of books in Chinese. This year $500 were expended for approximately 2,660 Chinese volumes.

Among the personal donors certain old friends have maintained their generous attitude of former years. Mr. Victor Emanuel has repeatedly purchased rare and valuable items for the Wordsworth Collection. Mr. and Mrs. William F. E.

Gurley of Chicago have continued their gifts of books (303 items) chiefly, though not exclusively, Shakespeareana and the drama. These two friends and Mr. Elmer M. Johnson of Ithaca have also made gifts in cash. Professor Morris Bishop presented the sum of $100 and donated numerous books. Dr. N. M. Crouse of Ithaca has added to his former gifts of books relating to the Spanish Civil War. Mrs. Louise F. Peirce of Ithaca donated the Roman 1782-1797 edition of Tiraboschi's "Storia della Letteratura Italiana," and a large manuscript work by the Conte Oratio d'Elci, "Relatione della Corte di Roma" (1701).

The Italian Government, through its Provveditore dello Stato presented us with a full set of the well-indexed catalogues of Italian government publications and of publications subsidized by the government. From Mr. Frederick J. Nettlefold of London, England came the fourth volume of the splendid catalogue of his collection of paintings and drawings. The Corporation of the City of London, England sent us the edition by A. H. Thomas and I. D. Thornley of "The Great Chronicle of London."

Mr. Carter Kingsley, '96, of Bath, N. Y. has been unremitting in his efforts to increase our book holdings. The Rev. Canon V. Leroquais of Paris presented a copy of his publication, "Un Livre d'Heures de Jean sans Peur." From the Pierrepont Morgan Library we received Capart and Gardiner's edition and facsimile of "Le Papyrus Leopold II . . . et le Papyrus Amherst." Mr. Arthur W. Du Bois of Hallstead, Pa. donated a miscellaneous collection of 72 volumes mostly in German. Mr. William H. Morgan of Alliance, Ohio presented us with 305 volumes of books and journals in the field of engineering.

OTTO KINKELDEY,
Librarian.

APPENDIX XXIII

PUBLICATIONS 1938–39

The University Library keeps alphabetically arranged the publications of University Officers, so far as received at the Library, and for this purpose copies are solicited. Omissions in the following list are due to incomplete information.

Cornell University. Official publication. v. 30, 1938–39.

Cornell University. Agricultural Experiment Station. Bulletin. Ithaca, N. Y. No. 690, 692, 696–715, 717–718, 1938–39.

—— Memoir. Ithaca, N. Y. No. 212, 217–224, 1938–39.

Cornell University. College of Architecture. Report of the Dean. 1937–38. *Cornell University. Off. pub. v. 30, no. 2. App. XI. 1938.*

Cornell University. College of Arts and Sciences. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. III. 1938.*

Cornell University. College of Engineering. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. XII. 1938.*

Cornell University. Director of Admissions. Report. 1937–38. *Ibid. v. 30, no. 2. App. XVI. 1938.*

Cornell University. Director of Physical Education and Athletics. Report. 1937–38. *Ibid. v. 30, no. 2. App. XIX. 1938.*

Cornell University. Director of Extramural Courses. Report. 1937–38. *Ibid. v. 30, no. 2. App. XX. 1938.*

Cornell University. Law School. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. IV. 1938.*

Cornell University. Dean of Women. Report. 1937–38. *Ibid. v. 30, no. 2. App. XV. 1938.*

Cornell University. Department of Hygiene and Preventive Medicine. Report. 1937–38. *Ibid. v. 30, no. 2. App. XX. 1938.*

Cornell University. Graduate School. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. II. 1938.*

Cornell University. Graduate School of Education. Report of the Director. 1937–38. *Ibid. v. 30, no. 2. App. XIII. 1938.*

Cornell University. Library. Report of the Librarian. 1937–38. *Ibid. v. 30, no. 2. App. XXI. 1938.*

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Cornell University. Medical College. Report of the Dean of the Medical College. 1937–38. *Ibid. v. 30, no. 2. App. V. 1938.*

Cornell University. Medical College, Ithaca Division. Report of the Acting Secretary. 1937–38. *Ibid. v. 30, no. 2. App. VI. 1938.*

Cornell University. President. Annual Report. 1937–38. *Ibid. v. 30, no. 2. 1938.*

Cornell University. Registrar. Report. 1937–38. *Ibid. v. 30, no. 2. App. XVII. 1938.*

Cornell University. Summer Session. Report of the Administrative Board. 1937. *Ibid. v. 30, no. 2. App. XIV. 1938.*

Cornell University. University Faculty. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. I. 1938.*

Cornell University. University Placement Bureau. Report. 1937–38. *Ibid. v. 30, no. 2. App. XVIII. 1938.*

New York State College of Agriculture. Report of the Dean for the year 1937–38. *Ibid. v. 30, no. 2. App. VIII. 1938.*

New York State College of Home Economics. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. X. 1938.*

New York State Veterinary College. Report of the Dean. 1937–38. *Ibid. v. 30, no. 2. App. VII. 1938.*

New York State Agricultural Experiment Station. Report of the Director. 1937–38. *Ibid. v. 30, no. 2. App. IX. 1938.*

New York State Agricultural Experiment Station. Geneva, N. Y. Bulletin 680–685. 1938–39.

—— Circular 180–185. 1938–39.
—— Technical bulletin. 249–251. 1938.
Areopagus. Ithaca, N. Y. v. 7. 1938–39.
Cornell alumni news. Ithaca, N. Y. v. 41. 1938–39.
Cornell countryman. Ithaca, N. Y. v. 36. Oct., 1938–June, 1939.
Cornell daily sun. Ithaca, N. Y. v. 59. 1938–39.
Cornell engineer. Ithaca, N. Y. v. 4. Oct., 1938–May, 1939.
Cornell extension bulletin. Ithaca, N. Y. No. 393–413. 1938–39.
Cornell junior extension bulletin. Ithaca, N. Y. No. 58. 1938.
Cornell law quarterly: published by the faculty and students of the Cornell Law School. Ithaca, N. Y. v. 24. December, 1938–June, 1939.
Cornell rural school leaflet. Ithaca, N. Y. v. 32. September, 1938–March, 1939.
Cornell Society of Hotelmen. Bulletin. Ithaca, N. Y. v. 11, no. 3–v. 12, no. 2. 1938–39.
Cornell University. Engineering Experiment Station. Bulletin. Ithaca, N. Y. No. 25, 1938.
Cornell University. Engineering Experiment Station. Reprint. Ithaca, N. Y. No. 2. 1938.
Cornell veterinarian. Ithaca, N. Y. v. 28. 1938.
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Farm economics. Ithaca, N. Y. No. 108–113. 1938–39.
Hotel administration. Ithaca, N. Y. No. 9. 1938.
Hotel news. Ithaca, N. Y. v. 1. Sept., 1938–May, 1939.
Islandica. Ithaca, N. Y. v. 27. 1938.
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—— *Reviews:* Klimn and others, Introductory economic geography. *Amer. soc. revw. v. 3 (Je., 1938): 428;* Barnes and Becker. Social thought from lore to science, vol. 1. *Rural soc. v. 3. no. 3 (1938): 344.*

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